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Arrangements for dealing with other subjects are now in progress, and the Editor wishes to add that he will be glad to receive suggestions and offers from accountants of experience for the undertaking of volumes not yet announced.

34 Moorgate Street,
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# AUTHOR'S NOTE.

WITHIN recent years Tramways have begun to play a very large part in City life. That part is daily becoming more important. To Tramway enterprise will belong, in the near future, no small share in widening the residential areas of cities, and in solving some of their most pressing problems.

The absence of any work on Tramway Accounts is, perhaps, explained by the fact of Tramways being such a recent development. The need of such a work will be best appreciated by those immediately connected with Tramway accounting.

Of the purposes which this volume is intended to serve may be mentioned the following:—

(1) The system described and illustrated is the outcome of long experience and continual improvement. It has been designed to meet the special exigencies of Tramway work, and to give the best results in the simplest and most direct way. Embracing, as it does, all branches of work in connection with a Tramway undertaking which is, in all respects, self-contained, having its own Generating Station, its own Works, its own Permanent Way Staff, &c., the system herein described is calculated to meet the requirements of any Tramway concern.

(2) The present lack of a uniform method of stating published accounts makes comparison of the accounts of different undertakings difficult and unreliable. Anything like satisfactory standardisation of accounts cannot be fully achieved by the mere general adoption of a certain form of published accounts. In addition to this, there must be, to a large extent, standardisation of the methods by which the results are obtained. It is believed that the essentials towards standardisation are provided in this volume.



(3) In the operation of even the best system of accounting, and especially where a considerable staff is required, the advantages are apparent of a book which will enable each member of the staff to gain an insight into all sections of the work, from the elementary stages to the published results. With a better grasp of the entire system, he will perform his own part with more intelligent interest, and will be more ready to take up other duties when required.

The aim of the writer has been to present, not merely a bare outline, but a complete working system, fully and sectionally described, to suit the requirements of junior as well as principal officials.

The following chapters, while being of special service to Tramway Officials, not only in this country but elsewhere, will also, it is believed, be found useful by many Corporation Officials, as well as of interest to the Accountancy profession generally.

My acknowledgments are due to JAMES DALRYMPLE, Esq., C.A., Chief Accountant of the Glasgow Corporation Tramways, with whom I have, from the first, been closely associated in conducting the accounting work of the undertaking, for his cordial and expert interest in this the first attempt to embody in book form a system of Tramway Bookkeeping and Accounts.

DONALD McCOLL.

88 Renfield Street,
Glasgow.

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## CHAPTER I.

### INTRODUCTORY AND GENERAL.

"There is not a science or class of men on whom the business of the world is more dependent than the science of accounts and accounting."—ANDREW CARNEGIE.

THE following preliminary remarks are offered as to the advisability of all the accounting work being conducted by a competent accountant and staff belonging exclusively to the Tramways undertaking, and under its General Manager.

(1) The accounting arrangements of a Tramway undertaking are necessarily of a special nature to suit the exigencies of the work. The accountant of a manufacturing firm cannot step into a Tramway office, and find his experience adequate—even the professional accountant, versed in the details of many businesses, generally treads on unfamiliar ground when he enters upon Tramway Accounts. In a greater degree than many businesses it is essentially one in which complete and satisfactory methods, successfully carried out, are only the outcome of actual experience, constant study, and undivided attention on the part of the Accountant, with a view to obtaining the best results with the least labour.

(2) If the General Manager of Tramways is responsible for their commercial success his department should, logically, be complete and self-contained. In the accounting arrangements, his requirements and ideas must be provided for. To afford him a continual search-light upon all the workings of the undertaking, he must have regular returns, statements, and information from the Accountant's Department. He must get all he wants, and *when* he wants it; and to ensure this, all the clerical, bookkeeping, and accounting staffs should come under him.

(3) The system under which, in some places, the Tramway accounting is conducted by an official who has charge of the accounts of quite a number of municipal undertakings, may naturally be assumed to have the disadvantage of precluding this official, on account of the variety and scope of his duties, from either possessing that intimate knowledge or devoting that close and constant attention to the work of a particular department—especially such a large department as that of Tramways—which it demands. Under such control, also, the natural tendency is to arrange the Tramway Accounts according to the long-established form in use for the other undertakings of the same municipality, instead of in harmony with those of Tramway undertakings elsewhere. With the latter method useful comparisons are possible; with the former, no practical purpose is served.

In laying down a basis on which to frame a complete system of Tramway Bookkeeping and Accounts, in which all the details of the subsidiary processes will be dovetailed into the general bookkeeping and published results up to which they lead, the



general principle is assumed at the outset of centralising all the accounting work within the Tramways Department itself.

Proceeding upon this principle, the question has been asked, What information should the General Manager require from his Accountant's Department? As every operation must pass the test of financial results, the Accountant's Department must provide the records for this test. Nothing should escape. Costs should be compared, period with period, depôt with depôt, item with item, down through all the details. In addition to providing the General Manager with regular comparative statements of Revenue and Expenditure, of Wages, of Maintenance Work in every branch, any special features that arise should be put before him. To ferret out excesses, defects, irregularities, to lay his finger on any weak spot to which his records and returns lead him—in these things the Accountant is the right hand of the General Manager. The goal to which the undertaking moves is the annually recurring report. From periodical statements received from the Accountant the General Manager should be able very nearly to anticipate the Annual Report. It is not enough to discover long afterwards things which *might* have been remedied: the returns from the Accountant should enable the General Manager to act promptly. No small portion of the Accountant's duty may be summed up in the word "Prevent."

In a broader sense the Accountant's science—for surely it is a science—is looked to to ensure that the finances of the undertaking are kept firm and safe. He will study depreciations; he will anticipate contingencies. His accounts will provide for the time to come.

The day of haphazard methods is past when everything that smacked of system was termed "red tape," and it is now seen that Systematic Accounting saves more than it costs. But the

Accountant, while arriving at the required results, will ever strive to simplify and perfect the means by which they are brought out.

Coming down from general principles, the first thing to be determined is the form in which the results of working will be presented. In other words, the framework of the whole system of accounting must be laid down in skeleton forms of Revenue Account, Capital Account, and Balance Sheet. The following forms are designed to afford the information likely to be the most useful. It will be observed that columns are provided for averages per K.W. hour and per car mile, as well as for the amounts and averages for the previous year, and that, where necessary, items of wages are shown separately from material. These provisions tend to make reliable comparisons with other accounts possible.



REVENUE ACCOUNT for year from to

*Dr.*

| Expenditure for year to | | | Expenditure. | | | Average per K. W. hour | Average per Car mile | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Average per K. W. hour | Average per Car mile | Amount | | | | | | | | |
| D | D | £ s d | | | £ s d | D | D | £ s d | £ s d | £ s d |
| | | | Power Expenses :— | | | | | | | |
| | | | *(1) Salaries .. .. .. .. .. | | | | | | | |
| | | | (2) Wages .. .. .. .. .. | | | | | | | |
| | | | Generating Station :— | | | | | | | |
| | | | Superintendent .. .. | | | | | | | |
| | | | Stokers .. .. .. | | | | | | | |
| | | | Cleaners and Greasers .. | | | | | | | |
| | | | Coal and Ash Attendants .. | | | | | | | |
| | | | Engineers .. .. .. | | | | | | | |
| | | | Electricians .. .. .. | | | | | | | |
| | | | Sub-Stations :— | | | | | | | |
| | | | Attendants .. .. .. | | | | | | | |
| | | | Assistant Attendants .. | | | | | | | |
| | | | (3) Fuel .. .. .. .. .. .. | | | | | | | |
| | | | (4) Oil, Waste, and Supplies .. .. | | | | | | | |
| | | | (5) Gas .. .. .. .. .. .. | | | | | | | |
| | | | (6) Water .. .. .. .. .. | | | | | | | |
| | | | (7) Miscellaneous .. .. .. .. | | | | | | | |
| | | | Traffic Expenses :— | | | | | | | |
| | | | (10) Salaries .. .. .. .. .. | | | | | | | |
| | | | (11) Wages :— | | | | | | | |
| | | | Depot Clerks .. .. .. .. | | | | | | | |
| | | | Motormen and Conductors .. .. | | | | | | | |
| | | | Traffic Regulators .. .. .. | | | | | | | |
| | | | Trolley and Point Boys .. .. | | | | | | | |
| | | | Miscellaneous .. .. .. .. | | | | | | | |
| | | | (12) Cleaning Cars :— | | | | | | | |
| | | | Wages .. .. .. .. .. | | | | | | | |
| | | | Material .. .. .. .. .. | | | | | | | |
| | | | (13) Oiling Cars :— | | | | | | | |
| | | | Wages .. .. .. .. .. | | | | | | | |
| | | | Material .. .. .. .. .. | | | | | | | |
| | | | (14) Lighting Cars .. .. .. .. | | | | | | | |
| | | | (15) Cleaning Rails and Salting and Sanding Track .. .. .. .. | | | | | | | |
| | | | (16) Fuel, Power, Gas, and Water for Depôts .. .. .. .. .. | | | | | | | |
| | | | (17) Uniforms .. .. .. .. .. | | | | | | | |
| | | | (18) Ticket Check :— | | | | | | | |
| | | | Tickets .. .. .. .. .. | | | | | | | |
| | | | Ticket Inspectors .. .. .. | | | | | | | |
| | | | Salaries (Punch and Ticket Room) . | | | | | | | |
| | | | (19) License of Cars .. .. .. .. | | | | | | | |
| | | | (20) Miscellaneous .. .. .. .. | | | | | | | |
| | | | Carried forward .. | | | | | | | |

**Note.*—Numbers in brackets are the General Ledger Account numbers as per numerical list, pages . These numbers need not, of course, appear in the published accounts.

*Dr.* REVENUE ACCOUNT—*continued.*

| Expenditure for year to | | | | | | |
|---|---|---|---|---|---|---|
| Average per Car mile | Amount | | Average per Car mile | | | |
| D | £ s d | | D | £ s d | £ s d | £ s d |
| | | Brought forward .. | | | | |
| | | General Expenses :— | | | | |
| | | (27) Salaries of General Officers and Staff.. | | | | |
| | | (28) Wages.. .. .. .. .. .. | | | | |
| | | (29) Auditors' Fee .. .. .. .. | | | | |
| | | (30) Rents .. .. .. .. .. .. | | | | |
| | | (31) Taxes .. .. .. .. .. .. | | | | |
| | | (32) Property and Income Tax .. .. | | | | |
| | | (33) Fuel, Light, and Water for Offices .. | | | | |
| | | (34) Fire Insurance Premiums .. .. | | | | |
| | | (35) Law Expenses .. .. .. .. | | | | |
| | | (36) Accident Insurance (3rd Party).. .. | | | | |
| | | (37) Employers' Liability Insurance .. | | | | |
| | | (38) Printing and Stationery .. .. .. | | | | |
| | | (39) Miscellaneous .. .. .. .. | | | | |
| | | Repairs :— | | | | |
| | | (46) Permanent Way— | | | | |
| | | Wages .. .. .. | | | | |
| | | Material .. .. | | | | |
| | | (47) Bonding— | | | | |
| | | Wages .. .. .. .. .. .. | | | | |
| | | Material .. .. .. .. .. | | | | |
| | | (48-49) Ducts, Manholes, and Cables— | | | | |
| | | Wages .. .. .. .. .. .. | | | | |
| | | Material .. .. .. .. .. | | | | |
| | | (50-53) Poles and Rosettes, Overhead Wires, Section Boxes, and Telephones— | | | | |
| | | Wages .. .. .. .. .. .. | | | | |
| | | Material .. .. .. .. .. | | | | |
| | | (54-64) Buildings and Fittings .. . | | | | |
| | | (65-70) Generating Station and Sub-stations' Machinery and Plant— | | | | |
| | | Wages .. .. .. .. .. .. | | | | |
| | | Material .. .. .. .. .. | | | | |
| | | (71) Works' Machinery and Plant .. .. | | | | |
| | | (72) Miscellaneous Plant .. .. .. | | | | |
| | | (73) Electric Cars— | | | | |
| | | Wages .. .. .. | | | | |
| | | Material .. .. | | | | |
| | | (74-77) Miscellaneous Vehicles .. .. | | | | |
| | | Sundry Equipments :— | | | | |
| | | (78) Bell Punches .. .. .. .. | | | | |
| | | (79) Car Accessories .. .. .. .. | | | | |
| | | (80) Miscellaneous Instruments, &c. .. | | | | |
| | | (81) Furniture and Fittings .. .. .. | | | | |
| | | Carried forward .. | | | | |



*Dr.* REVENUE ACCOUNT.—*continued.*

| Expenditure for year to | | | | | | |
|---|---|---|---|---|---|---|
| Average per Car mile | Amount | | Average per Car mile | | | |
| D | £ s d | | D | £ s d | £ s d | £ s d |
| | | Brought forward .. | | | | |
| | | (85) Permanent Way Renewal Fund :— Annual charge for Renewals unexpended and placed to credit of Renewal Fund (@ £ per mile of single track per annum) .. .. .. .. .. | | | | |
| | | (86) Depreciation— | | | | |
| | | Electrical Equipment of Lines .. .. | | | | |
| | | Buildings and Fittings .. .. .. | | | | |
| | | Machinery and Plant .. .. .. | | | | |
| | | Rolling Stock .. .. .. .. .. | | | | |
| | | Sundry Equipments .. .. .. .. | | | | |
| | | Furniture and Fittings .. .. .. | | | | |
| | | Horses .. .. .. .. .. | | | | |
| | | Harness .. .. .. .. .. | | | | |
| | | Total Amount of Working Expenses.. | | | | |
| | | Balance carried to Net Revenue Account .. | | | | |

*Dr.* NET REVENUE ACCOUNT. *Cr.*

| For year to | | | | | For year to | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Average per Car mile | Amount | | Average per Car mile | Amount | Average per Car mile | Amount | | Average per Car mile | Amount |
| D | £ s d | | D | £ s d | D | £ s d | | D | £ s d |
| | | (89) To Interest on Capital .. | | | | | By Balance from Revenue A/c. | | |
| | | (90) " Sink'g Fund | | | | | | | |
| | | (91) " Balance, being net Surplus carried to General Reserve Fund .. | | | | | | | |

The credit side of the Revenue Account would show the receipts under the headings of "Traffic," "Advertising on Tickets," &c., the details of the traffic revenue being shown in a separate statement in the report.

When power is bought by the Tramways concern at an inclusive rate the most convenient and satisfactory way in which this can be shown is to charge the total cost under Power Expenses.

*Dr.* CAPITAL ACCOUNT, as at.....

| Amount as at £ s d | | £ s d | £ s d |
|---|---|---|---|
| | To Permanent Way— | | |
| | M. F. YDS. M. F. YDS<br>Double Track ; Single Track | | |
| | " Electrical Equipment of Line— | | |
| | Rail Bonding .. .. (Depreciation %) | | |
| | Ducts and Manholes .. ( " %) | | |
| | Feeder Cables .. .. ( " %) | | |
| | Poles and Rosettes .. ( " %) | | |
| | Overhead Wires.. .. ( " %) | | |
| | Section Boxes .. .. ( " %) | | |
| | Telephones .. .. ( " %) | | |
| | Miscellaneous .. .. ( " %) | | |
| | *Deduct*—Depreciation as at last Balance, | | |
| | " " for year to | | |
| | " *Ground— | | |

| Property | Area. Sq. Yds. | Price per sq. yard including Feu Duty | Capitalised Feu Duty | Price Paid |
|---|---|---|---|---|
| | | | | |

| | | | |
|---|---|---|---|
| | " Buildings and Fittings— | | |
| | Electrical Generating and Sub-Stations .. .. (Each Building to be shown separately) | | |
| | Car Depots .. .. .. .. .. .. (Each Building to be shown separately) | | |
| | Works .. .. .. .. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | " Machinery and Plant— | | |
| | Generating Station .. .. .. .. .. | | |
| | Sub-Stations .. .. .. .. .. .. (Show each separately) | | |
| | Works .. .. .. .. .. .. .. | | |
| | Miscellaneous Plant .. .. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | Carried forward .. | | |

* Only price paid would be extended out.



*Dr.* CAPITAL ACCOUNT,—*continued.*

| Amount as at £ s d | | £ s d | £ s d |
|---|---|---|---|
| | Brought forward .. | | |
| | To Rolling Stock— | | |
| | Electric Cars .. .. .. .. .. .. | | |
| | Tower Wagons .. .. .. .. .. .. | | |
| | Salting, Sanding, and Watering Machines .. | | |
| | Lorries, Carts, and Vans .. .. .. .. | | |
| | Sundry Vehicles .. .. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | " Sundry Equipments— | | |
| | Bell Punches .. .. .. .. .. .. | | |
| | Car Accessories .. .. .. .. .. .. | | |
| | Miscellaneous Instruments, &c. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | " Uniforms— | | |
| | *Deduct*—Depreciation as at last Balance to reduce cost by one-half, being normal value .. | | |
| | " Furniture and Fittings .. .. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | " Horses— | | |
| | .....Horses in Stock at last Balance .. | | |
| | ..... " purchased during year .. .. | | |
| | .....Horses sold and dead during year (Depreciated value) .. .. .. | | |
| | Horses in Stock at £ each .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " for year to....to reduce Average price to £ | | |
| | " Harness .. .. .. .. .. .. .. | | |
| | *Deduct*—Depreciation as at last Balance | | |
| | " " @ % for year to | | |
| | " Preliminary Expenses .. .. .. .. .. | | |
| | " Parliamentary Expenses.. .. .. .. .. | | |

NOTE.—It will be observed that the foregoing form of Capital Account provides for the original cost being shown in every case, and for the deduction, in separate amounts, of the previous Depreciation, and the Depreciation for the year to date of balance. It will also add to the clearness of the Accounts if the percentages of Depreciation on the full cost are shown. (See notes on Depreciation, pages 118-124.)

In addition to the Capital Account it is desirable to show, when Capital Expenditure is incurred during the year, a separate Account exhibiting the particulars of such Expenditure under the same headings as appearing in the Capital Account.

BALANCE SHEET, as at .

| *Dr.* | | |

## Numerical List of General Ledger and Subsidiary Accounts, with Items chargeable thereto.

| | Revenue Account Nos. | Capital Account Nos. | Balance Sheet A/c. Nos. | General Account Nos. | Items Chargeable |
|---|---|---|---|---|---|
| Salaries Account (Power Expenses) | 1 | .. | .. | .. | Salaries of those exclusively engaged in connection with production of Power, and proportion of any others partly applicable thereto. |
| Wages Account " " | 2 | .. | .. | .. | See Revenue Account page 5. |
| Fuel Account " " | 3 | .. | .. | .. | Fuel used exclusively in production of Power. |
| Oil, Waste, and Supplies Account " " | 4 | .. | .. | .. | All items applicable to ordinary running as apart from maintenance. |
| Gas Account " " | 5 | .. | .. | .. | Cost of Electric Light for Power Station and Sub-Stations to be included under various items of Power expenses. |
| Water Account " " | 6 | .. | .. | .. | Water purchased exclusively for Power production. |
| Miscellaneous Account " " | 7 | .. | .. | .. | Any running expenses not included under the foregoing accounts. |
| Salaries Account (Traffic Expenses) | 10 | .. | .. | .. | Salaries of those exclusively engaged in connection with Traffic, and proportion of any others applicable thereto. |
| Wages Account " " | 11 | .. | .. | .. | See Revenue Account, page 5. |
| Cleaning Cars Account " " | 12 | .. | .. | .. | Wages of Car Cleaners, and all materials and tools used in the work. |
| Oiling Cars Account " " | 13 | .. | .. | .. | Wages of Car Greasers, and all materials and tools used in the work. |
| Lighting Cars Account " " | 14 | .. | .. | .. | Amount transferred from Power expenses for energy consumed for Car Lighting at the average cost per K.W. hour. |
| Cleaning Rails and Salting and Sanding Track Account " " | 15 | .. | .. | .. | Cost of salt and sand for tracks and all re'ative wages. |
| Fuel, Power, Gas, and Water for Depôts Account " " | 16 | .. | .. | .. | Cost of items specified (energy for car sheds to be transferred from Power Expenses at average cost per K.W. hour). |
| Uniforms Account " " | 17 | 17c | .. | .. | Original Cost to Capital; Repairs and Renewals to Revenue. |
| Ticket Check Account " " | 18 | .. | .. | .. | See Revenue Account, page 5. |
| Licence of Cars Account " " | 19 | .. | .. | .. | |
| Miscellaneous Account " " | 20 | .. | .. | .. | Sundry and Petty expenses applicable to Traffic, and not covered by any of the other accounts as above. |
| Salaries of General Officers and Staff Account (General Expenses) | 27 | .. | .. | .. | All Salaries not applicable to other accounts. |
| Wages Account " " | 28 | .. | .. | .. | Miscellaneous Wages not applicable to other accounts. |
| Auditors' Fee Account " " | 29 | .. | .. | .. | Fee for professional Audit of Books and Accounts. |
| Rents Account " " | 30 | .. | .. | .. | All Rents for Ground or Premises let or leased to the Tramways undertaking. |
| Local Taxes Account " " | 31 | .. | .. | .. | All local Taxes. |
| Property and Income Tax Account " " | 32 | .. | .. | .. | Imperial Tax. |
| Fuel, Light, and Water for Offices Account " " | 33 | .. | .. | .. | |
| Fire Insurance Premiums Account " " | 34 | .. | .. | .. | Net Premiums after deduction of Commission. |
| Law Expenses Account " " | 35 | .. | .. | .. | |
| Accident Insurance (3rd Party) " " | 36 | .. | .. | .. | Premium for indemnification against accidents to persons or property of third parties. |



| | | | | | |
|---|---|---|---|---|---|
| Employers' Liability Insurance A/c., (General Ex.'s) | 37 | .. | .. | .. | Premium for indemnification against accidents to employees. |
| Printing and Stationery Account " " | 38 | .. | .. | .. | All Books, Printing, and Stationery. |
| Miscellaneous Account " " | 39 | .. | .. | .. | Sundry and Petty General Expenses not applicable to any specific accounts, and also balance of Horsing expenses not applicable to any other accounts. |
| Permanent Way Expenditure Account .. .. Sub-numbers for each permanent way section and junction; R., signifying Repairs; Rs., Renewals; and C., Capital. Separate Account for each number will be kept in Permanent Way Expenditure Ledger. (See page ). | 46 | .. | .. | .. | All Wages and Material used charge to this account in General Ledger, and from it write off expenditure against proper accounts. Permanent Way Repairs and Renewals should not include anything in connection with the Electrical equipment of the line, and it will be generally found better not to treat lines inside Depôts as part of the regular Permanent Way. |
| Permanent Way Renewal Fund Account .. .. | 85 | .. | 46b | .. | See Revenue Account, page 7, and Balance Sheet, page 10. |
| " " Account (Capital) .. .. .. | .. | 46c | .. | .. | Cost of Construction of Permanent Way as outlined for Account 46. |
| " " (Oncost Account) .. .. .. | .. | .. | .. | 46 l | Freight, Horsing, and other general Permanent Way expenses to be allocated at the end of the year to Sectional Accounts *pro rata* to the wages charged to each. |
| Bonding Account .. .. .. .. .. .. | 47 | 47c | .. | .. | Original Cost in each case to Capital Account, and Maintenance to Revenue Account. These accounts should include all Ducts, Cables, Wires, &c., inside Depôts. |
| Ducts and Manholes Account .. .. .. .. | 48 | 48c | .. | .. | |
| Feeder Cables Account .. .. .. .. .. | 49 | 49c | .. | .. | |
| Section Boxes Account .. .. .. .. .. | 50 | 50c | .. | .. | |
| Telephones Account .. .. .. .. .. | 51 | 51c | .. | .. | |
| Poles and Rosettes Account (Capital) .. .. .. | .. | 52c | .. | .. | |
| Overhead Wires Account " .. .. .. | .. | 53c | .. | .. | |
| Poles and Overhead Wires Account (Maintenance).. | 52-53 | .. | .. | .. | |
| Miscellaneous Account .. .. .. .. .. | 54 | 54c | .. | .. | Any miscellaneous Expenditure in connection with Electrical equipment of line. Original Cost to Capital, Maintenance to Revenue Account. |
| Sub-Accounts as under :— | | | | | |
| No. 1 Time in Yard | | | | | |
| Renewals only: *2 Trolley wire; straight line hangers and ears; feeder splicing anchor and curve ears; double and single pull-offs; emergency and fluted splicers; section insulators, frogs and cross-overs | | | | | |
| Renewals only: *3 Trolley span wire; large and small Brooklyn insulators; rosettes and bolts; poles; bands and bolts; anchor wires | | | | | |
| Renewals only: *4 Guard span wire; guard wire; ball insulators; small rosettes; split links; Clevis balls | | | | | |
| Renewals only: *5 Ground wires and jointed connectors | | | | | |
| 6 Emergency Repairs Account | | | | | |
| 7 Ordinary Inspection and Repairs Account | | | | | |
| * Permanent Way Section or Junction Nos. also to be quoted. | | | | | |
| Buildings and Fittings (separate accounts for ground. Same Account Nos. but marked G) .. .. Separate number for each building. | 55-64 | 54c-64c | .. | .. | Cost of Construction of Buildings, and Track inside same, to Capital, and Repairs to Revenue Account. To Ground Accounts only price paid for ground would be charged. |

## Numerical List of General Ledger and Subsidiary Accounts, with Items chargeable thereto—(*continued*).

| | Revenue Account Nos. | Capital Account Nos. | Balance Sheet A/c. Nos. | General Account Nos. | Items Chargeable |
|---|---|---|---|---|---|
| Generating Station Plant.. .. .. .. .. | 65 | 65c | .. | .. | Cost of Plant (including foundations) to Capital, and Repairs to Revenue Account. |
| Sub-numbers for the various portions of Plant, such as the following:— | | | | | |
| Sub-A/c. No. MECHANICAL. | | | | | |
| 1 Main Engine No. 1 (by ) | | | | | |
| 2 " " " 2 (by ) | | | | | |
| 3 " " " 3 (by ) | | | | | |
| 4 " " " 4 (by ) | | | | | |
| 5 Auxiliary Engines | | | | | |
| 6 Exciter Engines | | | | | |
| 7 Air Pumps | | | | | |
| 8 Circulating Pumps | | | | | |
| 9 Condensers | | | | | |
| 10 Feed Pumps | | | | | |
| 11 Boilers | | | | | |
| 12 Brickwork for Boilers | | | | | |
| 13 Economisers | | | | | |
| 14 Brickwork for Economisers | | | | | |
| 15 Steam, Water, and Exhaust Piping | | | | | |
| 16 Mechanical Stokers | | | | | |
| 17 Coal Bunkers (outside) | | | | | |
| 18 " " (inside) | | | | | |
| 19 Coal Conveyors | | | | | |
| 20 Coal Weighing Apparatus (inside and outside) | | | | | |
| 21 Overhead Cranes | | | | | |
| 22 Locomotive Cranes | | | | | |
| 23 Hot Well and Fee Water Tanks, &c. | | | | | |
| 24 "Sigrist" Oiling System | | | | | |
| 25 Oil Separators, Filters, and Water Meters | | | | | |
| 26 Tools | | | | | |
| 27 Miscellaneous | | | | | |
| ELECTRICAL. | | | | | |
| 28 Three-Phase Generators | | | | | |
| 29 Direct Current Generators | | | | | |
| 30 Exciter Generators | | | | | |
| 31 Motors | | | | | |
| 32 Switch Boards, Connections, and Instruments | | | | | |



| | | | | | |
|---|---|---|---|---|---|
| GENERAL. | | | | | |
| 33 Railway Sidings | | | | | |
| 34 Electric Lighting | | | | | |
| "R" to be quoted for Repairs, "C" for Capital. As the foregoing accounts apply to a particular installation, they are only given for illustration. Modifications will be necessary where the Plant differs. | | | | | |
| Sub-Stations Plant Account (separate account for each Sub-Station) .. .. .. .. .. | 66-70 | 66c-70c | .. | .. | Cost of Plant as specified (including relative foundations) to Capital, and Repairs thereto to Revenue Account. |
| Sub-numbers, such as the following:— | | | | | |
| 1 Rotaries | | | | | |
| 2 Transformers | | | | | |
| 3 Switch Boards, Connections, and Instruments | | | | | |
| Works' Machinery and Plant Account .. .. | 71 | 71c | .. | .. | Cost of Engine, Boilers, Lathes, and all Machines, &c. (including relative foundations) to Capital, Repairs thereto to Revenue. |
| Sub-numbers may be used for various machines as required. | | | | | |
| Miscellaneous Plant Account .. .. .. .. | 72 | 72c | .. | .. | All movable Plant which does not come under other accounts. Cost chargeable to Capital, and Repairs to Revenue. |
| Electric Cars Account (Maintenance) .. .. .. | 73 | .. | .. | .. | Maintenance of Cars, including Electrical equipment, as per under-noted sections, but excluding movable requisites for Cars, such as Ramps, Indiarubber Gloves, &c., which come under Account No. 79. |
| Under Sub-Accounts such as the following the Maintenance work might be divided:— | | | | | |
| Sub-A/c. No. MECHANICAL. | | | | | |
| 1 Car Body (including panels, glass, commode handles, roof and roof rails, canopy rods, platforms and steps, laths (in and out), top seats, inside seat framing, &c., and doors) | | | | | |
| 2 Gongs | | | | | |
| 3 Draw Bars and Couplings | | | | | |
| 4 Stairs and Stair Rails | | | | | |
| 5 Dashes | | | | | |
| 6 Gates | | | | | |
| 7 Hand Brake Gear and Shoes | | | | | |
| 8 Destination and Slip Boards | | | | | |
| 9 Truck Frames (including everything in connection with Truck, except axles, wheels, axle boxes, and bearings) | | | | | |
| 10 Axles, Axle Boxes, and Bearings | | | | | |
| 11 Wheels | | | | | |
| 12 Lifeguards | | | | | |
| 13 Sand Gear | | | | | |
| 14 Miscellaneous | | | | | |

## Numerical List of General Ledger and Subsidiary Accounts, with Items chargeable thereto—(*continued*).

| | Revenue Account Nos. | Capital Account Nos. | Balance Sheet A/c. Nos. | General Account Nos. | Items Chargeable |
|---|---|---|---|---|---|
| ELECTRICAL. | | | | | |
| 15 Trolley Wheels, Poles, and Standards | | | | | |
| 16 Motor Wiring | | | | | |
| 17 Lighting Circuit | | | | | |
| 18 Bell Circuit | | | | | |
| MOTORS. | | | | | |
| 19 Auto Cut-out, Canopy Switch, and Fuse Box | | | | | |
| 20 Rheostats and Lightning Arrestors | | | | | |
| 21 Controllers | | | | | |
| 22 Field Coils | | | | | |
| 23 Armatures | | | | | |
| 24 Commutators | | | | | |
| 25 Bearings | | | | | |
| 26 Gears, Gear cases, and Pinions | | | | | |
| 27 Brushes and Brush Holders | | | | | |
| Electric Cars Account (Construction) .. .. under Sub-Accounts, such as the following, Construction work might be divided :— | .. | 73c | .. | .. | Cost of Cars, as described for previous account. |
| Sub-A/c. No. | | | | | |
| 1 Car Body (including frames, panels, roofs, platforms, buffer couplings, gongs and sand gear, dashes, roof rails, end destination plates, stairs and stair rails, canopy rods, inside seats, finishing, garden seats, hatches and lathing, doors and glass; hand brake, gearing | | | | | |
| 2 Truck (including truck frames, axles, and wheels) | | | | | |
| 3 Cables: Power Cables, Lighting and Bell Wiring. | | | | | |
| 4 Lighting and Bell Fittings | | | | | |
| 5 Trolleys, Standard Pole and Head complete | | | | | |
| 6 Motor Equipment (including motors, controllers, canopy and auto-switches, gears and gear cases, resistances, lightning arrestor, and choke coil fuse box, &c.) | | | | | |
| 7 Painting (including polishing and varnishing) | | | | | |



| | | | | | |
|---|---|---|---|---|---|
| Tower Wagons Account .. .. .. .. .. | 74 | 74c | .. | .. | Cost to Capital, and Repairs to Revenue. |
| Salting, Sanding, and Watering Machines Account. | 75 | 75c | .. | .. | |
| Lorries, Carts, and Vans Account .. .. .. | 76 | 76c | .. | .. | |
| Sundry Vehicles Account .. .. .. .. .. | 77 | 77c | .. | .. | |
| Bell Punches Account .. .. .. .. .. | 78 | 78c | .. | .. | |
| Car Accessories Account .. .. .. .. .. | 79 | 79c | .. | .. | Movable requisites for Cars, such as Ramps, Indiarubber Gloves, &c.; Cost to Capital, Repairs and Renewals to Revenue. |
| Miscellaneous Instruments, &c., Account .. .. | 80 | 80c | .. | .. | All moveable Electrical and Mechanical Instruments and Accessories; Cost to Capital, Repairs to Revenue. |
| Uniforms Suspense Account .. .. .. .. | .. | .. | 80b | .. | |
| Furniture and Fittings Account.. .. .. .. | 81 | 81c | .. | .. | All Furniture and movable Fittings in Offices; Cost to Capital, Repairs and Renewals to Revenue. |
| Interest on Capital .. .. .. .. .. .. | 89 | .. | .. | .. | |
| Sinking Fund .. .. .. .. .. .. | .. | .. | 90b | .. | |
| Depreciation .. .. .. .. .. .. .. | 86 | .. | .. | 86d | |
| General Reserve Fund .. .. .. .. .. | .. | .. | 91b | .. | See Balance Sheet, page 10. |
| Parliamentary Expenses .. .. .. .. .. | .. | 82c | .. | .. | Costs of Acts of Parliament promoted by Corporation for Tramway purposes. |
| Preliminary Expenses .. .. .. .. .. | .. | 88c | .. | .. | Miscellaneous initial organising Expenses not chargeable under any other accounts. |
| Horsing Expenses Account :— | | | | | |
| Separate Ledger Accounts as under— | | | | | |
| Provender .. .. .. .. .. .. | .. | .. | .. | 92d | Horsing Expenses should be allocated at the end of the year over expense accounts in the Revenue Account, according to the Horsing work done. The Accounts (Nos. 92d to 98d) would, therefore, all be subject to allocation at the end of the year. |
| Litter .. .. .. .. .. .. | .. | .. | .. | 93d | |
| Shoeing .. .. .. .. .. .. | .. | .. | .. | 94d | |
| Veterinary .. .. .. .. .. .. | .. | .. | .. | 95d | |
| Stable Stores .. .. .. .. .. | .. | .. | .. | 96d | |
| Harness .. .. .. .. .. .. | .. | 97c | .. | 97d | |
| Horses .. .. .. .. .. .. | .. | 98c | .. | 98d | |
| Stores Accounts (separate account for each Store).. | .. | .. | 99b-114b | .. | |
| Sundry Debtors Account .. .. .. .. .. | .. | .. | 115b | .. | Outstanding Accounts due to the undertaking. |
| Sundry Creditors .. .. .. .. .. .. | .. | .. | 116b | .. | |
| Bank Account .. .. .. .. .. .. | .. | .. | 117b | .. | Monthly Totals of Bank Lodgments and Withdrawals as per Cash Book. |
| Cash Account .. .. .. .. .. .. | .. | .. | 118b | .. | " " Receipts and Payments as per Cash Book. |
| Conductors' Change Account .. .. .. .. | .. | .. | 119b | .. | |
| Loans Account (*Cr.*) .. .. .. .. .. | .. | .. | 120b | .. | |
| Tradesmen's Account (*Cr.*) .. .. .. .. | .. | .. | 121b | .. | Monthly Totals of Tradesmen's Accounts as per Cash Book (*Cr.*), and Monthly Totals of Purchase Allocation Book as Journalised. |
| Unpaid Wages Account .. .. .. .. .. | .. | .. | 122b | .. | From Cash Book entries. |
| Found Money .. .. .. .. .. .. | .. | .. | 123b | .. | |
| Conductors' Overs .. .. .. .. .. .. | .. | .. | 124b | .. | |
| Closing Accounts (not included in foregoing) :— | | | | | |
| Revenue Account .. .. .. .. .. | .. | .. | .. | 128b | From Journal entries. |
| Capital Account .. .. .. .. .. | .. | .. | .. | 129b | |
| Balance Account .. .. .. .. .. | .. | .. | .. | 130b | |

In connection with the Standardisation of Accounts, it would be very convenient for purposes of comparison, if, in addition to the general adoption of the same form of Revenue Account, Capital Account, and Balance Sheet, every undertaking included in its Financial Report general information and statistics such as the following :—

## Sundry Statistics

*Borrowing Powers*, £ Authorised £ Exercised £ Unexhausted

*Sinking Fund*, £ Total charged to Net Revenue Account £ Applied in reduction of Debt

*Capital Expenditure*, £ Gross £ Depreciation Written off £ As reduced by Depreciation

*Reserves—Amount at Credit of* £ Renewal Fund £ Reserve Fund

*Length of Track* :—

| | Within City Boundary | | Outwith City Boundary | | Totals | |
|---|---|---|---|---|---|---|
| | Single | Double | Single | Double | Single | Double |
| | M. F. Y. | M. F. Y. | M. F. Y. | M. F. Y. | M. F. Y. | M. F. Y. |
| Owned .. | | | | | | |
| Leased .. | | | | | | |
| Totals | | | | | | |

*Population and Area served by Tramways* :—

| | Population | Area. (Acres) |
|---|---|---|
| Within City .. | | |
| Beyond " .. | | |

*Scale of Fares* :—

| | ½d. | 1d. | 1½d. | 2d. | 2½d. | 3d. | 3½d. | Average Fare charged per Mile |
|---|---|---|---|---|---|---|---|---|
| Average distance (Miles) | | | | | | | | |



*Receipts* :—

| Traffic | Total | Average per Car Mile (Traffic) | Average per Car Mile (Total) | Average Fare paid per Passenger | Average per Mile of single track (Traffic) |
|---|---|---|---|---|---|
| £ | £ | D | D | D | £ |

*Passengers* :— Total Number.....

| | ½d. | 1d. | 1½d. | 2d. | 2½d. | 3d. | 3½d. | Total |
|---|---|---|---|---|---|---|---|---|
| Percentage at each Fare | % | % | % | % | % | % | % | 100 % |

Average distance Paid for per Passenger.....Miles.

Average number of Passengers per Car mile.....

*Car Mileage* :—

| Total | Average Speed per hour (including all stops) |
|---|---|
| | |

*Cars* :—

| Total | Average No. in use ( Hours per day) |
|---|---|
| | |

*Revenue and Expenditure (Summary)*—

| | £ s d | Average per Car Mile | Per cent. of Expenses to Revenue |
|---|---|---|---|
| | | D | |
| Total Revenue .. .. .. .. | | | |
| Ordinary Working Expenses .. .. | | | |
| Depreciation .. .. .. .. | | | |
| Total Working Expenses .. .. | | | |
| Interest on Capital .. .. .. | | | |
| Sinking Fund .. .. .. .. | | | |
| Total Expenses .. | | | |
| Net Balance .. .. | | | |

*Disposal of Net Balance* :—

## CHAPTER II.

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## TRAFFIC.

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THE following remarks apply to a system in which the Bell Punch is used.

**Issuing Tickets, Way Bills, and Punches from Head Office.**—

Into each conductor's box would be put—

(1) Tickets.

(2) Journey Way Bills (Form No. 1). On the first Journey Way Bill to be used would be entered the first number of the tickets at each fare.

(3) Total Way Bill (Form No. 2). On this would be entered first and last numbers of the tickets at each fare.

(4) Punch.

The total Way Bill (Form No. 2) would be signed by the conductor on receiving and checking the specified tickets, &c., including padlock and key. This Way Bill would be left with the Depôt clerk, and would be sent by him to the Head Office, along with cash, at night.

**Receiving Cash and Way Bills at Cash Offices.**—

As a rule a Cash Office should be situated at one of the termini of each line. At the end of each double journey the conductor would hand in to the clerkess in the Cash Office—



(1) The packets of tickets he is using.

(2) The cash bag containing his drawings (including the amount of change put in the bag to start with).

(3) His Journey Way Bills.

The cash clerk would examine the tickets returned and enter and extend on the Journey Way Bill the tickets sold. She would then check the cash in the conductor's bag, and enter the amount (excluding the starting change) on the Journey Way Bill. If everything is found correct, these amounts should correspond. Any difference, whether short or over, would be marked on the Journey Way Bill. The cash clerk would give the conductor a receipt for his cash from a Counterfoil Receipt Book, and drop the money into the slot of a locked cash box. The conductor's bag containing change, and the remaining Journey Way Bills, would be handed to him for use on the next journey. On the next Journey Way Bill the starting numbers of the tickets would be entered by the clerkess before she returns the bag to the conductor.

It will save much time in the Head Office if the Journey Way Bills for *each conductor* are kept separate in the Cash Office instead of the bills of all the conductors being mixed promiscuously together.

In order also to admit of the drawings being abstracted, when required, for different periods of the day, it is suggested that the time of collection be recorded on each Way Bill.

**Receiving Cash for "late" Journeys and Sundays at Depots.**—

As the Cash Offices cannot well be kept open much later than 10 p.m. on week days, and will probably be closed altogether on Sundays, the conductors' drawings at such times will require to be collected at the Depôts. Instead, however,

of the money being handed in at the end of each double journey, it would be kept by the conductor until he goes off duty, when he would deliver it to the Depôt clerk, or other authorised official, who would check it and grant a receipt from the Counterfoil Book for the amount. The conductor would, however, make out a separate Way Bill for each double journey.

**Checking Cash at Head Office.—**

The cash from each Cash Office and Depôt would be checked separately, and should correspond with both the total of the Journey Way Bills and the total of the Counterfoil Receipt Book. The total cash should correspond with the total of the Daily Traffic Revenue Abstract (*vide* Form No. 6). The cash, after being balanced, might be put up in bags as follows:—

Silver, into £5 and £10 paper bags, and these into £100 canvas bags.

3d. pieces, into £1 paper bags, and these into £50 canvas bags.

Copper, into £5 canvas bags.

The total amount should be banked on the day after it has been checked, or, with the exception of Mondays, on the second day after collection.

**Abstracting Receipts.—**

The amounts of the Journey Way Bills for cash handed in would be entered on Route Abstract of Journey Way Bills (Form No. 3). For this purpose the Burroughs Registering Accountant or Adding Machine is very serviceable, and saves a great deal of labour. There would be a separate abstract for each route. Each abstract would show the total amount paid in by each conductor for the day. The totals of the Route Abstracts of Receipts would be carried to a Daily Traffic Abstract of Receipts (*vide* Form No. 6).



**Shorts.—**

On each Conductor's Total Way Bill would be entered from the Abstract of Journey Way Bills the exact amount of cash paid in by him for the day. Any difference between this and the amount for tickets sold would be entered on the Total Way Bill, either as over or short. This difference would be checked with the total amount of Shorts and Overs, as noted on the Journey Way Bills. When a Short is more than 2d., the Journey Way Bill would be sent to the conductor, along with a notice (Form No. 4) to be signed by him. The amounts of such Shorts would afterwards be entered into a Conductors' Shorts Book (Form No. 5), in which all the conductors belonging to each Depôt would be entered together. The total amount of each conductor's Shorts for the week as per this book would be deducted from his wages on the Wages Sheet (*vide* Form No. 9). The total amount of Shorts collected for the week would be added at the foot of the following week's Traffic Revenue Return. Shorts under 2d. might, perhaps, instead of being charged to conductors, be treated as afterwards explained in connection with Overs under 2d.

**Overs.—**

All conductors' Overs (say, of 2d. and above), as shown on the Total Way Bills, would not be included in the Traffic Revenue, but would be placed to the credit of Conductor's Overs Account, after deducting the difference between Shorts under 2d. and Overs under 2d. The latter will be found to invariably exceed the former. The amount in this Overs Account might be annually distributed among conductors, say, *pro ratâ* to their service during the year in which the Overs have accrued. Books ruled like the Shorts Book (Form No. 5) would be required for recording—

(1) Overs of 2d. and above.
(2) Shorts under 2d.
(3) Overs under 2d.

**Car Mileage.—**

It will be necessary to show the car mileage in three different sets of figures, the totals of which should correspond:—

(1) Mileage for each route.
(2) Mileage for each Depôt.
(3) Mileage for each car.

The route mileage is required for the purpose of working out averages for receipts, as on Form No. 6. The Depôt mileage is required for working out average costs of car maintenance, car cleaning, &c., at each Depôt. The mileage for each car is, generally, for the purpose of showing the work done by each car, and particularly as bearing on the service of the wheels.*

From the regular number of journeys to be performed on each route, according to the Time Tables in force, the total mileage run can be readily made up if all irregularities are reported. For this purpose a form such as No. 7 may be used. The mileage of each car, according to its route number, is thus ascertained, and the mileage for each route number has only then to be allocated against the official number painted on each car.

Another method would be for the Journey Way Bills to be marked as under:—

(1) Any part journeys.
(2) The exact number of journeys where more than one are included in the Way Bill.

From the bills thus marked the total mileage run can be made up independently of the Time Tables. Every Journey Way Bill not marked for portion of a journey, or for more than one, would be reckoned as for one complete journey. The length of the route, multiplied by the exact number of journeys run, and any fraction, would give the exact revenue mileage.

* See Car Wheels Record Book, Form No. 54.



Whatever be the method, however, of arriving at the exact revenue mileage, it is certainly more accurate, for all purposes, to add to it any distance to and from the terminus and Depôt, in order to bring out the gross mileage for which wages are paid, power consumed, and maintenance incurred.

**Car Hours.—**

On a Tramway system where the speed of the cars on some routes is much greater than on other routes, it is desirable, for purposes of accurate comparison, to show the average earnings per car hour for each route, and perhaps, on occasion, also for different periods of the day. The car hours, including all time out of the Depôt, are easily ascertainable from the Time Tables, after allowing for reported irregularities. This may be checked by the number of journeys actually performed as per the Way Bills, calculated at the gross time required for the journey, with an addition in respect of time taken in going to and from Depôt and terminus.

**Passengers.—**

From the Total Way Bills the number of the tickets sold at each fare for the day would be carried to Abstracts of Passengers carried. There would be one abstract for each route. By extending the total number of tickets sold at each fare, the total receipts will be brought out. This total should correspond with the total cash handed in after adding Shorts and deducting Overs. If the number of passengers carried at each fare for different periods of the day is desired, the tickets issued would be abstracted from the Journey Way Bills—marked with time of collection—instead of the Total Way Bills.

The number of tickets issued as per each conductor's Way Bill would be entered into the Punch Register (Form No. 8) alongside the number registered by the punch.

## CHAPTER III.

## WAGES.

THE payment of tramwaymen's wages has always been troublesome work. Different methods have been tried, but experience alone can discover the best.

Of the undesirable methods which are apt to be tried may be mentioned that of paying drivers and conductors on the street from a machine. This system had disadvantages with horse cars, and, with electric cars, it should be avoided if at all possible. It is apt to cause some detention of traffic, and it is both troublesome to the men and trying to the pay clerks.

Where employees are required to sign for their wages, receipt forms are generally used. This, however, is a laborious and unsatisfactory system. It means that the forms must first of all be written out by the pay clerks and checked, then distributed at the Depôts, and, after collection, marked off on the Wages Sheets. If signatures are required at all, a better plan is to get the men to sign opposite their names on the Wages Sheet. Signatures, however, should not be necessary; the strictest auditor will scarcely insist upon them, and will doubtless consider a good system of pay checks preferable.

**Recording Time.**—

The time of drivers and conductors should be taken from the Output Lists or other returns from the Car Depôts, showing the number of regular, special, and workmen's cars out, men



employed thereon, and number of journeys run as per Time Tables. A Depôt clerk or other official at the Depôt having oversight of these men should keep this time, as also that of car repairers, cleaners, greasers, &c., who are engaged inside the Depôt. For the Depôt men a board with numbered brass checks may be used, each man, on entering, being required to drop his check into a slot; or automatic time recorders may be provided, these having the advantage of recording, in typed figures, the exact minute, not only of each employee's arrival, but also of his leaving, which, in a place with open gates, is desirable. For all employees whose time requires to be subdivided among different accounts, special Allocation Returns should be used (*vide* Forms Nos. 38, 48, 55, 68, and 71). These returns may be filled up by some of the men themselves, probably by car repairers at Depôts, and the staffs of the Overhead and Mains Departments. For permanent way and car works men it will, perhaps, be found necessary to have such returns filled up by the timekeepers.

The official at each place whose duty it is to keep the time should enter it daily into a duplicate Wages Sheet (Form 9).*

The original sheets would be torn out and sent to the Head Office. The names should be arranged in the Wages Sheet according to occupations and rates, and should be numbered, sufficient blank numbers being left after each class to be taken up as required. Where Allocation Returns are received in addition to a Daily Record being kept, a careful comparison should be made and the returns certified. Each Wages Sheet should be certified by the official who has taken and entered the time, and also by the foreman or other official in charge. All

* Duplicate Wages Sheets have obvious advantages. The duplicate is always available for comparison, which is a safeguard against entries being made on the original after it leaves the Depôt. The necessity for writing out a copy for reference at the Depôt Office is also dispensed with.

time should be marked in Wages Sheet according to a general code, such as the following:—

I. Full day's work.

H. On holiday (with pay).

L. Absent with leave (extension of holiday without pay, or other authorised absence without pay).

A. Absent without leave.

Y. Time in yard (stating number of hours).

S. Sick.

Sp. Suspended.

Weekly wages are recommended, the week running from Sunday to Saturday inclusive. Sunday is thus left for the completion of the Wages Sheets at the Depôts, &c., so that they can be sent to the Head Office on Monday morning. Locked tins, in which the sheets can be *rolled*, will be found suitable for their conveyance.

**Checking Time.**—

On arrival of the Wages Sheets at the Head Office, the time extensions should be checked, and an abstract (Form No. 10) made up from them showing the number of each class of employees each day at each Depôt, with averages wrought out per car, per car mile, &c. From this abstract the aggregate time entered in each Wages Sheet would be checked according to the known requirements of the service. Any excess at one Depôt over another would thus be brought out, and could be promptly dealt with.

**Rates Entered and Checked.**—

The rates of wages should be entered in Wages Sheets by the officials who are responsible for the marking of the time. For the accuracy of these rates, however, the pay clerks should be



responsible, and the rates entered should be compared by them with those in the previous week's sheet. Rates might be advanced as per special Recommendation Notes from Duplicate Book (Form No. 11). Both forms would be sent to the Head Office, one being certified by the official in charge of the men and by the general manager, and the other returned with the dates filled in when advances take effect. As will be seen on Form No. 9, the Wages Sheet has a column for length of service. The service of each man can in this way be automatically carried forward week by week by the addition of one to the previous week's service. This is a valuable adjunct to the Wages Sheets, and serves as a check on the rates of all employees who are advanced according to length of service. It will be found convenient to have the recommendations for advances filed for reference both at the Head Office and at the outside offices.

**Wages Sheets Extended and Checked.**—

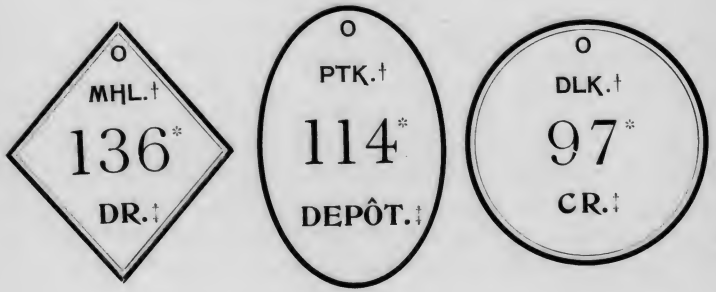
The Wages Sheets should be extended by the pay clerks, each clerk extending the sheets from which he is to pay, and another checking them. Deductions should be entered in the columns for the purpose. The column headed "F. S." is for Friendly Society Contributions. Conductors' Shorts would be entered from a "Shorts" Book made up from the Way Bills. Claims against employees would be entered from a Claims Accounts Rendered Book.* The Sheets would thus be checked as to time, rates, and amounts before payment is commenced.

**Payment of Wages.**—

The Depôt and traffic wages should be paid at the Depôts, the pay clerk remaining at each Depôt until the entire staff has

* Small Counterfoil Receipt Books would be used, from which a receipt would be given by pay clerk for each amount received in payment, or to account, of a claim.

rotated. On the morning of payment each employee would be handed at the Depôt a brass check bearing his occupation and Wages Sheet number. These checks might be in three shapes, and lettered and numbered for each Depôt as under:—




At the Depôts the checks, when not in use, should be kept hung on a folding board, which should be locked. Each employee would hand his check, and state his name, to the pay clerk, the latter ticking, in indelible pencil, the amount in the Wages Sheet as paid. At the Head Office the amounts ticked on the Wages Sheets should be compared with the checks brought back. After comparison, the checks would be returned to the Depôts in the locked tins which convey the Wages Sheets, these tins having a removable wire arrangement to hold the checks securely.

All lying times should be paid at the Head Office by a pay clerk there from certified duplicate lines (Form No. 12). A pay check should not be given to an employee who is granted a line for lying time. To prevent any chance of amounts being twice paid no lying time lines should be granted for time

† Abbreviation for name of Depot.
* Employee's number on Wages Sheet.
‡ "Dr." and "Cr." signify "Driver" and "Conductor." "Depot" signifies an employee engaged *within* the depôt.



entered on Wages Sheets which have been sent to Head Office. A clear method of treating in the Wages Sheets payments for lying time is to add them at the end of their respective sheets, throughout which are unextended entries for the time wrought. At these unextended entries reference notes should be made to the amounts added at the end of the sheet.

In paying wages at the Depôts, it will be found that, as the men do not come forward very quickly, or in numerical order, the cash can quite readily and accurately be counted down on the spot. Indeed, to have such wages made up beforehand, say in tins, would involve a needless waste of time. The same method of paying can be applied to Permanent Way employees, who may be scattered in distant squads, and who cannot come up numerically to the vehicle from which it is necessary to pay in order to avoid bringing the men a distance in paid time.

For paying Works employees, however, round tins, with numbered lids, are most serviceable. These tins may be placed on trays divided in sections to fit the tins, and the trays conveyed in a strong shelved box, securely locked. By this method some hundreds of men can be paid in a very few minutes, and the rotation of the men may be varied week by week to give equal chances of first payment. The cash for such wages would all be balanced before commencing payment.

**Holidays with Pay.**—

If holidays with pay are granted after a certain length of service, the dates will probably be balloted for at the Depôts, &c. Into a Duplicate Book (Form No. 13) would be entered the Pay Check No., Name, Service, and Date balloted for, for each employee entitled to holidays with pay. The original form would be sent to Head Office, and the duplicate retained in the book at the Depôt. All the names for each period would be entered together, and the periods would be chronologically

arranged. The return would thus show at a glance how many men should be on holiday at any particular time. The pay clerks would check the returns with length of service of each man as entered in the Wages Sheets. When holidays are granted, the holiday time would, of course, be entered by the Depôt clerk in the Wages Sheet, and recorded on his Duplicate Holiday Return; and, when extended and paid by pay clerks, would be recorded on the originals of the Holiday Returns kept by them.

**Piecework Contracts.**—

In connection with the works, contract prices would probably be fixed to allow the workers to earn on the average a certain percentage, say three-eighths, more than their wages would amount to at their ordinary rates per hour. An agreement (Form No. 14) would be signed by the workers on accepting a contract.

During the currency of a contract, the men engaged on it would be paid their wages each week for the exact time wrought at their ordinary rates per hour. At the conclusion of the contract a statement (Form No. 15) would be made up, showing the wages paid to each man, and bringing out the balance due on the whole contract. This balance would be entered in the Wages Sheet.

In order to show clearly the average earnings on each contract over a period, and to be in a position to reduce a contract-price *whenever* the average earnings exceed the limit, the particulars from the Contract Forms should be entered into an Abstract Contracts Book (Form No. 16), all contracts of each class being entered together. At any point, or for any period, these can be added up and averaged.



**Balancing.**—

On the day after all the wages are paid, the summations of the Wages Sheets would be completed and checked by different clerks, and each sheet stamped and certified as under:—

| | Done by | Checked by |
|---|---|---|
| Extensions .. .. | ..... | ..... |
| Additions .. .. | ..... | ..... |
| Examined by..... | | |

The pay clerks would enter into an Unpaid Wages Book (Form No. 17) all wages unclaimed, and square off the Shorts and Claims Books for Shorts and Claims collected by them.

Each pay clerk would make out a statement (Form No. 18) of all his receipts and payments, the balance of which should agree with the cash he has left over. The totals of these statements would be embodied in an abstract (Form No. 19). The cash balances would be paid over to the cashier, who would sign each pay clerk's statement for the amount received back. The Cash Book entries would be made from the abstract. This balance should be effected before the next week's Wages Sheets come in, and should leave the pay clerks without a penny on hand, ready to commence the new week unhampered by anything connected with the week which has gone.

**Weekly Analytical Statement of Wages.**—

As the Wages Sheets are brought back after payment an inside clerk in the Wages Department should be engaged preparing from them an analytical statement (Form No. 20) of the

wages paid, showing also the number of Cars, Car Mileage, and resulting averages, as well as the figures for the preceding week, and for the corresponding week of the previous year.

To Form No. 21, which may be used as a Cash Book Voucher, the totals from Form No. 20 would be carried. Form No. 21 provides the figures analysed exactly as required for the Revenue Account in the published report. These amounts for the 52 weeks, if entered on a large abstract under the different headings, will provide the exact figures for the year's Revenue Account.

**Auditing Wages Sheets.**—

Apart from the professional audit, it is desirable that the Wages Sheets should be carefully audited by an official who is neither a pay clerk nor cashier. Such departmental audit should embrace the entire wages work, of which varying portions could be done weekly. The following points are suggested:—

*Time.*—Check extensions of total days or hours for each man. For motormen and conductors see that any short time of one man is paid to another.

Note any excess time beyond normal requirements.

*Rates.*—Check with length of service all rates not increased.

Check with length of service and Advance Notes all rates increased, and verify dates when advances are to take effect.

*Extensions.*—Check amount of wages extended for each employee.

*Additions.*—Check addition of every page of Wages Sheets.

*Brass Checks.*—Mark off Wages Sheets with checks received by pay clerks in exchange for wages.



*Length of Service.*—Check length of service entered for each employee by addition of one week to service as at previous week.

*Holidays.*—Check with Holiday Returns (Form No. 13) all amounts entered on Wages Sheets for holidays.

*Deductions.*—Check deductions entered in Wages Sheets for Friendly Society Contributions, Shorts, and Claims with the respective books.

Check pay clerks' Counterfoil Receipt Books with payments entered in Claims Book.

*Transfers.*—See that all transfers of men from one Depôt or class to another are properly given effect to in Wages Sheets.

*Audit Book.*—Record all errors, omissions, and irregularities of every kind in Wages Audit Book each week.

The Wages Sheets should be arranged in weeks, and paged for binding at suitable intervals.

## CHAPTER IV.

# GENERAL STORES.

WHAT is aimed at is a complete and accurate system of requisitioning, purchasing, receiving, storing, issuing, and accounting for all stores which will be sufficiently simple to be easily carried out. Electric traction materials embrace many items which are costly, and require to be closely accounted for.

For overlooking the requisitioning, receiving, storing, and issuing of the goods there should be, in a large undertaking, a General Stores Superintendent, with an all-round knowledge of the goods. He would see that the stock in all the stores is kept up; that new goods required are timeously requisitioned; that all goods received are promptly and properly examined, and all shortages, defects, or deviations from order or contract immediately advised. He would see that materials are systematically arranged in the stores, and sent out against proper requisitions. He would weed out obsolete items, and keep a keen eye on scrap. He would, in short, attend to the handling and all the practical work of the stores, and see that all the accounting requirements are strictly carried out. The value to the interests of the undertaking of an official who intelligently and untiringly does this work in perfect co-operation with the accountant is very great. The best system of accounting is useless unless the outside arrangements are dovetailed into it. Premising this essential condition the principle may be laid down that all stores, except such as it is found more convenient or economical to receive where they are to be



used, should be delivered direct to a General Store as the distributing centre.

**Numerical List of Stores.—**

The adoption of a Standard List of Stores, in which each article will have its fixed description and number, may almost be said to be a necessity for the proper and economical control of stores on a large scale. The goods in all the stores would be arranged in bins or compartments, and these numbered in accordance with the list, which would thus be a complete index to the Stores. A classification, somewhat on the following lines, might be found suitable:—

| ARTICLE No. | |
|---|---|
| | SECTION A. |
| 1 to 590 | Bolts, Nuts, Washers, Screws, Nails, Rivets, Pins, and Sundry Ironmongery including:—Locks, Lock Furniture, Hooks, Tower or Slip Bolts, Oil Cans and Measures, Oil Lamps, Gauge Glasses and Lubricators, Wire, Glasspaper, Emery Cloth, &c., &c. |
| | SECTION B. |
| 1 to 152 | Iron, Steel, Brass, Copper, Muntz and White Metal Bars, Rods, Sheets, &c. |
| | SECTION C. |
| 1 to 103 | Water, Gas and Steampipes and Fittings, and Brass and Copper Tubing. |
| | SECTION D. |
| 1 to 416 | Workshop and Hand Tools, Machine Tools, and Cast Steel for Tools. |
| | SECTION E. |
| 1 to 46 | Castings, Unfinished, Cast Iron, Malleable Iron, Cast Steel, Brass, Gun Metal, Phosphor Bronze, and White Metal. |
| | SECTION F. |
| 1 to 176 | Oils, Paints, Varnishes, &c., and Painters' Tools. |

| Article No. | |
|---|---|
| | **SECTION G.** |
| 1 to 82 | India Rubber and Asbestos Goods. |
| | **SECTION H.** |
| 1 to 75 | Stable Saddlery and Shoeing Requisites (except Shoeing Iron). |
| | **SECTION I.** |
| 1 to 435 | Sundries, (not Electrical) :— Leather Belting, Ropes and Twines, Canvas, Collar Check, &c., Chains, Springs, Shovels, Picks and Clawts, Brushes, Brooms, and Handles for Tools and Brushes, Buckets and Pails, Soaps, Waste, Sponges, Dusters, Polishing Paste, Chamois Skins, Sacarbolate, &c., Sundry Vehicles' Material, Glass, Enamelled Plates, Acids, Punch Repairing Material, Fire Clay Goods, Lime and Cement, and Movable requisites for Cars. |
| | **SECTION J.** |
| 1 to 300 | Sundries, (Electrical) :— Insulating and Binding Tapes and Insulating Paints, Cables and Wires, Carbon Brushes, Electric Light Fittings (including Lamps), Ebonite, Fuses. |
| | **SECTION K.** |
| 1 to 137 | Permanent Way Materials (including Bonds). |
| | **SECTION L.** |
| 1 to 150 | Ducts, Feeder Cables, Manholes and relative supplies, |
| | **SECTION M.** |
| 1 to 71 | Overhead Equipment. |
| | **SECTION N.** |
| 1 to 613 | Car Parts (Mechanical) :— Brill Truck, Hand-brake Gear, Lifeguards, Draw Gear, Sand Gear, Gongs, Dashes, Car Body, Doors, Stairs, Seats, &c., &c. |
| | **SECTION O.** |
| 1 to 893 | Car Parts (Electrical) :— Motor, Controller, Lightning Arrestor, Choke Coil and Fuse Box, Resistances, Auto. Cut-out, Canopy Switch, Electric Bells, Distribution Block and Terminals, &c., Trolley Standard and Parts, Car Wiring. |
| | **SECTION P.** |
| 1 to 20 | Scrap. |

This List provides both for combinations of parts, and for the detailed parts themselves.



For the detailed arrangement of the list the following example is submitted:—

SECTION A.—BOLTS AND NUTS.

| Article No. | | |

In the Annual contracts, in Enquiries and offers, in Requisitions, Orders, Advice Notes, Invoices, Dispatch Notes, Consumpt Returns, and Stock Accounts the list number and description of each article would be quoted. Plurality of descriptions and erroneous and inadequate descriptions would thus be impossible. The utility of the list would be greatly increased by including in it illustrations of parts, principally electrical, with their list numbers. Some businesses find it convenient to work with lot numbers—that is, each lot received is given a number, and is dealt with under that number until used up or disposed of. This method appears to have been tried for Tramway work, but a little consideration will at once prove its inadaptability. The numerical list here recommended is infinitely simpler and more serviceable. It systematises and facilitates the entire work—requisitioning, purchasing, receiving, storing, distributing, accounting for, and pricing. Without the Numerical List of Stores the most careful working will not preclude a great deal of confusion and trouble; with it, accuracy is made incalculably easier, and, indeed, practically *inevitable.*

**Requisitioning Stores to be Purchased.—**

In a Triplicate Requisition Book (Form No. 22) kept at the General Store, all supplies to be ordered for General Stores (which would include everything not requiring to be delivered direct elsewhere) would be entered, each requisition being certified by the Stores Superintendent. The original would be retained in the book. The duplicate and triplicate would be sent to the Head Office (Purchasing Department). The former would be submitted to the General Manager, or Engineer, or perhaps both, for approval and certification. In the Purchasing Department the order number and the name of the firm from whom goods are ordered would be entered on the triplicate, which would be returned to the stores clerk. As the goods are received the dates and quantities would be entered on these



requisitions. (In the case of articles requisitioned which the Purchasing Department cannot order at the time, the latter would, when such goods are ordered, at once advise the stores clerk of order number and name of the party to whom the order has been sent.)

**Ordering Stores.—**

No goods would be supplied without an official written order (Form No. 23) from a Duplicate or Triplicate Book. The goods would be ordered by their article numbers and descriptions, as per the Numerical List. On the orders would be quoted the price, delivery date and place, and account chargeable. (It is assumed that, for goods not included in annual contracts, competitive offers would generally be taken, and prices fixed before ordering.) It will be noticed that the order form contains an instruction that the goods must be accompanied by a detailed Advice Note giving article and order numbers, and that these would also be quoted on a priced invoice, to be sent on dispatch of the goods. From Advice Notes, dates and quantities of all deliveries would be at once recorded on the orders in pencil, and inked over when the invoices are passed. (This will tend—in addition to other precautions in checking accounts at the General Store—to prevent accounts being twice passed.) It may be found serviceable to annex to certain orders a slip, to be filled up and returned by the receiver, acknowledging and accepting the order at the price and delivery date named.

Where there is any trouble in getting deliveries as stipulated, a good method is to have the Order Book in triplicate form, and to classify the triplicates (the duplicates would be sent out) according to the delivery due dates. The order clerk would thus have before him each day everything due for delivery that day, and could, where necessary, send timely reminders to contractors.

**Receiving Stores Purchased.—**

All goods received should at once be checked with Advice Notes, which, if correct, would be stamped and initialled as under—

| | |
|---|---|
| Goods Received by | ..... |
| ,, Examined by | ..... |
| ,, Charged to | ..... A/c. |
| ,, Entered by | .....P/..... |

The space "Goods Examined by" would be initialled by the Stores Superintendent, who would examine the goods received with the accepted samples.

The particulars of the goods would be entered into a Duplicate Goods Received Book (Form No. 24). This would be done at once, and especially if, by some mischance, an Advice Note is not received with the goods. The signed Advice Notes would be sent daily to Purchasing Department, with particulars of any deliveries that may have been unaccompanied by Advice Notes. From these notes the invoices would be checked as to quantities. The perforated originals from the Goods Received Book would be sent to the Accountant's Department, and would there be checked with and priced from the allocated invoices and postings of quantities and prices made to Stock Accounts (Form No. 28).

**Issuing and Allocating Stores.—**

Requisitions from Depôts, &c., to General Stores (Form No. 33) are referred to in Chapter VI. They would only be executed after being certified by the General Manager and/or the heads of the departments interested, and the Stores Superintendent. On each requisition would be stated the Store



Account or other general account to which the goods are chargeable as from General Stores. Goods would be issued to Works, if adjoining General Stores, against requisitions as per Form 35. Any items in the requisitions which are not in stock would be entered into an Unfulfilled Requisitions Book (Form No. 25), and marked off there when dispatched. The requisitions would be kept numerically arranged for each Depôt. The storekeeper or assistant who dispatches goods would initial the items on the requisitions. If this is done it will be known, when there is any mistake as to quantity, who has attended to the requisition. In the case also of stock of a particular item going down without being reported it will be known who has handled it last. From the initialled requisitions the stores clerk would make out Dispatch Notes from Triplicate Book (Form No. 26). It will be noticed that the Dispatch Note contains the Requisition Number, Article Number, and Account Chargeable. The original and duplicate would accompany the goods. The duplicate would be retained by the receiver, who would sign the original, certifying the correct receipt of the goods, and return it to the General Store. When the quantity received disagrees with that on Dispatch Note the receiver would get a colleague to check and certify the Dispatch Note along with himself. The receipt of the signed original at the General Store would be recorded in the space for the purpose on the triplicate retained in the Dispatch Book. The signed originals would then be sent to the Head Office, where they would be copied into General Stores Issues Allocation Sheets (Form No. 27); or, to save writing and show the actual receipts opposite the allocated figures, the signed originals might be pasted on to the left-hand side of the Allocation Sheets. The Dispatch Notes would be either entered or pasted in *numerical* order, thus ensuring that there are no missing Dispatch Notes. These Allocation Sheets would be priced when being posted to the General Stores Stock Accounts,

afterwards mentioned. When purchase-prices of an article have varied, the oldest stock would always be charged out at its purchase-price. The price charged for each quantity issued could be entered in the Stock Account. By this method the balance of the Stock Account will always represent, as nearly as possible, the cost of the goods on hand, proving that those issued have been properly priced. Where large quantities of stores are used, and prices vary, the importance of accurate pricing is obvious. Large discrepancies may easily arise if this is not carefully observed.

An abstract of the General Stores Issues Allocation Sheets would be kept, showing, for each week, the total amounts debited against the various accounts. These accounts, as will be seen, are principally Store Accounts, so that no sub-division showing the amount for each article is necessary. In a small undertaking, or in one where Depôt Stores are not kept, it will doubtless be advisable to sub-divide the material issued from the General Store, bringing out, as explained elsewhere, the cost of the consumpt of each distinct item of stores. These would, of course, be worked out in averages per car, or car mile, for purposes of comparison.

**Stock Accounts.—**

The necessity for a Stock Account for each item of stores is obvious. It provides, as already indicated, a correct basis for pricing issues; but, what is of more vital importance, it provides a check on the stock itself. The example (Form No. 28) shows the stock at the beginning of the financial year; and also the various receivals posted from the duplicates from the General Stores Received Book. The issues are posted from the duplicate Dispatch Notes (signed by receivers), which, as already explained, are entered into or affixed to the General Stores Issues Allocation Sheets. It is recommended that the stock of a certain number of items should be taken in rotation



every week, and recorded in the Stock Accounts in the column for the purpose. Discrepancies should be carefully investigated. If the stock has been correctly taken on the last occasion, and all the postings are right, there should be no discrepancy, assuming that the goods have been properly handled. The system would be such that no goods could be received without being entered in the Goods Received Book, because all the entries therein are checked with allocated invoices. Nor could any stores be issued without being entered in Dispatch Book, because the vanman could not load, and the receivers could not receive, any article unaccompanied by a Dispatch Note. A considerable shortage must, therefore, mean mishandling in some way within the General Store. The inference is obvious. Probably, however, it is largely as a *deterrent* that Stock Accounts are of value. The mere knowledge among the staff that there is a close system of accounting for every item must tend towards both accuracy and honesty.

It is, of course, impossible in a large store to have the entire stock taken exactly as at the date of a balance. Allowing for the carrying on of the regular work of receiving and issuing, many days, even some weeks, may be necessary for complete and careful stocktaking. It is, therefore, suggested that ample time be taken to ensure absolute accuracy in stocktaking, and that the stock of each item on the date on which it is taken be carried into its Stock Account. This stock, plus any postings for subsequent receivals and minus any postings for subsequent issues up to the date of the balance, would give the figure to be included in the Stock Sheet, and to be brought down in the Stock Account.

It may here be suggested that for Stock Accounts the Loose Leaf Ledger system is specially suited. From an experience of Bound Ledgers, the Card system, and, finally, Loose Leaf

Ledgers, the writer can testify to the undoubted advantages of the last method over the others. Among the disadvantages of the bound book are:—

(1) New accounts or pages cannot be inserted in books when and where occasion arises, and blanks are sure to be required where they have not been provided.

(2) At balance time the accounts, being in book form, cannot be distributed among a number of clerks to be quickly done up.

(3) At the end of the financial year some of the accounts may be filled up, and there may be no room to transfer them. Consequently there is the expense of a new Ledger, and the labour of opening some thousands of new accounts in it, while the other work is going behind.

The Card system does away with the foregoing, but it has some disadvantages of its own:—

(1) Cards, cut in index form, are expensive.

(2) For the general purposes of a Stock Account the usual card is too small.

(3) Posting to cards takes too much time. A few thousand cards—which may probably be kept in a drawer—make an unwieldy pile. For each posting the card has to be found in the box, taken out, and returned to its place after the entry is made. Posting to cards is thus more laborious than into a book.

The sheets for a Loose Leaf Ledger, being of ordinary paper and not cut in index fashion, are both cheap and can be of suitable size. If kept on a file after the principle of the



"Premier,"* but with a locking arrangement, they are exceedingly handy for posting. Sheets can be added, shifted, or withdrawn at will. No wholesale opening of new accounts is necessary. A fresh sheet is merely introduced where and when required, and the old one, if not for the current year, taken out and put away. The objection may be made to Loose Leaf Ledgers that they *are* loose, and that consequently accounts may go astray. In the writer's experience not a single account has ever gone amissing. But if it did, another account could be made up, from the date of the last stocktaking, from the records of receivals and issues from which the original postings were made.

* May be had from G. Edwards & Co., Queen Street, Manchester.

## CHAPTER V.

## POWER STATION.

**Stores.—**

THERE would, of course, be a proper store at the Power Station, kept on the same lines as the other Stores. Into a Duplicate Goods Received Book (*vide* Form No. 34), from which the perforated originals would be sent to the Accountant's Department, would be entered particulars of goods received from contractors. The Duplicate Dispatch Notes accompanying goods from General Stores would be filed for reference to save entering same into Goods Received Book. The goods would only be issued against duplicate requisitions (*vide* Form No. 35), and these requisitions would be abstracted into Duplicate Material Returns similar to Form No. 36, and charged against the proper Maintenance or Capital Accounts, as per list on page 14, or to Oil, Waste, and Supplies Account, if for running expenses. From these duplicate Receivals and Issues Returns, as well as from General Stores signed Dispatch Notes, postings would be made to Stock Accounts kept at the Head Office. From the priced and extended Issues Returns an abstract would be made up showing the weekly consumpt of each article for Oil, Waste, and Supplies Account. The transfers from the Power Station Stores Account in the General Ledger would be made at the end of the year from the abstracted Issues Returns.

**Wages.—**

The system of recording time and paying wages would be as explained in Chapter III. Here it should be observed that the engineers may often be doing repairs in their ordinary time, but as their full time would, in any case, be chargeable to Power Expenses, no deduction should be made from Power Expenses for



any time spent on maintenance work. Only the material used by such men for this work would be chargeable to maintenance. Maintenance work done for the Power Station by the Works would be charged to the specific Power Station Accounts, as per list on page 14.

**Fuel.—**

The Power Station will be happily situated if it has sidings from more than one railway system. At each siding there would be a Wagon Weighing Box, where a Wagons Received Book (Form No. 29) would be kept, in which each wagon received would be fully recorded. The clerk at the Power Station would keep a Fuel Receivals and Stock Book (Form No. 30). He would enter in this book, in the column for the purpose, the weights as per the Advice Notes, and, in the next columns, the net weights as per the Wagons Received Books already mentioned. By entering daily the weight consumed in the column so headed, and deducting the total from the total weight received, the stock is brought out, which should agree with the quantity in the bunkers. The daily consumpt would be taken from the weighing indicators, which weigh the coal in the shoots before it passes into the furnaces.

**Log.—**

In addition to a detailed hourly Log, which would be kept at the Power Station, a Daily Log (Form No. 31) might be kept. This could be in duplicate form, the original being torn out and sent every morning to the General Manager. From this Log the Accountant's Department would get the information as to the current generated and coal and water consumed. In every building to which current is supplied for other than power purposes a Watt meter should be placed, in order that the current for such purposes may be properly charged and deducted from the current strictly applicable to the running of the cars.

## CHAPTER VI.

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## DEPOTS.

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A CERTAIN quantity of Stores for Car Cleaning, Oiling, and Repairing must necessarily be kept at each Depôt. These should certainly be systematically arranged in a store in the same way as at the General Store. The numbers and descriptions as per the standard list would be adhered to throughout. It will be found advantageous to have everything properly recorded and strictly accounted for at each Depôt Store. A good system of keeping and accounting for Depôt Stores will more than repay its cost, in addition to providing important information.

**Requisitions for Stores to be Purchased.—**

Certain things—such as sand, coal, &c.—it will be necessary to have delivered direct to the Depôts by contractors. For requisitioning such goods it is recommended that a special Duplicate Book (Form No. 32) be used. These requisitions would be certified by the Stores Superintendent, and perhaps also by the General Manager. On the duplicates retained in the book at the Depôt the dates of deliveries would be recorded, with the initials of the receiver. The requisitions would be sent to the Head Office, perhaps once a week. These goods would, of course, be ordered as explained in connection with General Stores requisitions, Chapter IV.



**Requisitions for Supplies from General Store.—**

For this purpose a Duplicate Book (Form No. 33) would be used, these requisitions being made out monthly or weekly (the former preferably), and sent to the Head Office to be examined and certified before being forwarded to General Stores for attention. Delivery dates and initials of receiver would also be recorded on originals retained in the Requisition Book.

**Receivals of Stores.—**

Each delivery would be carefully checked, and any discrepancy noted on the accompanying Dispatch Note, and certified by a colleague. In a duplicate Goods Received Book (Form No. 34) would be entered particulars of all goods received, other than those from General Store, the duplicate Dispatch Notes for which would be filed in lieu of entering particulars into Goods Received Book. All parts taken out of use, whether as scrap or for repair, would be returned to the Depôt Store, and entered on Duplicate Requisitions (Form No. 35). The perforated originals from the Goods Received Book would be torn out and sent to the Head Office as the pages are filled up. There they would be checked with, and priced from, the invoices, as these are being allocated.

**Stores Issued and Used Parts Returned.—**

Stores would only be issued in strict accordance with *all* the following conditions:—

(1) When required for use.

(2) Against duplicate requisitions (Form No. 35) signed by the foreman, giving the standard article numbers, the Maintenance Accounts chargeable, and the particulars of all parts returned to Store, whether for repair or as scrap.

(3) In exchange for corresponding parts taken out of use, either for repair or as scrap, as entered on the requisitions.

At the Head Office these requisitions would be classified at the end of the week, according to the articles and accounts chargeable, and the entries for goods issued would be abstracted into a Duplicate Return of Material (Form No. 36).

Separate Material Returns would be made out for stores issued for—

(1) Car Maintenance.

(2) Car Cleaning and Oiling.

(3) Sub-station (if any).

Special attention is directed to this form. The account numbers on the Maintenance Sheet are those as per list on the Time Allocation Return (Form No. 38). The purpose of the column headed "A—accident, O—Ordinary tear and wear" will be apparent. The separation of ordinary maintenance work from that which is due directly to damages from collisions, &c., is useful. especially in comparing costs per car or car mile at the various Depôts. The material taken out of use and returned to the Depôt Store must, of course, be credited to the proper Maintenance Accounts. Such credit entries would be made against these accounts in the Material Returns (Form No. 36) from the requisitions (Form No. 35).*

The Duplicate Material Returns (perforated originals) would be priced from the Stock Accounts when the postings are being made to these. The pricing of all stores issued for use must be very carefully done from the Stock Accounts, if the General Ledger Accounts are not to show irreconcilable differences at the end of the year.

* Scrap and parts for repair would be sent periodically from the Depôt Stores to the General Stores, Dispatch Notes (Forms Nos. 37 and 26 respectively) being made out to accompany them. The scrap would be sold as from the General Stores, and the parts for repair would be accumulated and passed into the Works in suitable quantities. (See also note on pricing of scrap and parts for repair, pp. 55-56). For any work to be done at the Works, such as repairs to cars, or anything which cannot be ordered from the Works by the General Stores, an order to Works (triplicate) would be used (Form No. 42).



All credits for scrap would be priced at selling prices, and, for parts to be repaired, the original prices would be credited.*

After the Material Sheets have been posted to, and priced from, the Stock Accounts they would be extended and checked, and the amounts posted to a Depôts Expenditure Ledger (Form No. 40). It will be noticed that this Ledger has columns for the various Depôts, and that, under each Depôt, debits and credits are shown separately, "G—good," meaning that full prices have been credited, and "S—scrap," signifying that selling scrap prices have been credited. The Material Sheets for stores issued from Depôt Stores for car cleaning and oiling, and also for stores issued to sub-stations, would also, of course, be posted to, and priced from, the Stock Accounts, and, after being extended, would be abstracted in order to bring out the total amount for each item of stores. By working out these amounts per car or car mile at each Depôt, and comparing them, the consumpt of each individual item at each Depôt can be checked, and it can be seen whether the standard allowances (if such are laid down, as they certainly should be, as far as possible) are being exceeded, or whether it is necessary to alter these allowances. The smallest economies in items of constant consumpt may mean a great saving to an extensive undertaking, and this detailed method of accounting for such supplies used is the surest way to prevent excess.

**Stock Accounts.**—

From the priced Goods Received Sheets (Form No. 34), and also from the signed and priced Dispatch Notes from General Stores, postings would be made to Stock Accounts similar to Form No. 28, which should be kept in the same manner as at the General Store—viz., on the Loose Leaf Ledger principle. A separate

* See pages 55-56.

Stock Account would be kept for each distinct article, and would be headed with the number and name of the article as per the Standard List of Stores, *vide* page 37. These Stock Accounts might most suitably be kept at the Head Office for the following reasons:—

(1) The Material Returns (Form No. 36) can most accurately be priced from the Stock Accounts, and prices could not well be included in the Stock Accounts unless the latter were kept in the Head Office.

(2) The more clerical work required at the Depôts, the more versatile—and highly paid—the men there must be. Only such clerical work as *cannot* be done at the Head Office should be done at the Depôts. Centralisation is more economical, makes supervision more perfect, and ensures more accurate work.

(3) Stock Accounts are, in any case, better to be kept by those who have nothing to do with the handling of the stores.

The Stores Superintendent should see that stock of some items is taken regularly at each Store, and that returns of these are made to the Accountant's Department for comparison with the Stock Accounts. On the latter the particulars of each stocktaking would be recorded in the columns for the purpose. Where a discrepancy occurs, the Stock Account and the goods in the Store would be carefully checked. If it is decided that a deficiency on a particular account (the actual stock being less than the balance of the Stock Account) has arisen through an error in former stocktaking, or in issuing since such stocktaking, a special entry initialled by the Stores Superintendent would be made in the Goods Dispatched Book (against the account to which the item is most likely to apply), and posted in red to the credit of the Stock Account, thus bringing



the latter into line with the actual stock on hand. A similar entry, initialled by the Stores Superintendent, might be made in the Goods Received Book, and posted to the Stock Account for any stock on hand in excess of the Stock Account, after both have been carefully checked. (Such entries in the Goods Received Book would, of course, require to be posted to the General Ledger from special Journal entries, debiting the particular Store Account, and crediting the account or accounts to which the goods apply.)

**Stocktaking.—**

At the Depôt Stores, where both the variety and the quantity will be very much less than at the General Store, it will be preferable to have the stock taken as at the closing day of the financial period. Stock Sheets (Form No. 80) would be used. These would, of course, be priced from the Stock Accounts.

**Pricing Credits for Scrap.—**

When parts are taken out of use and found to be beyond repair, and require replacement, they should be credited at the prices which can be realised for them as scrap. As a rule, the scrap will be contracted for, and there should be no difficulty in pricing it. Where there are no contracts, and the prices realised differ appreciably from those credited, Journal entries should certainly be made to rectify the discrepancies. As General Stores Account would be credited in the General Ledger with all scrap sold, the entry, assuming that the prices realised exceeded those taken credit for, would be as follows:—

General Stores Account .. .. *Dr.*
To Car Maintenance Account ..

**Pricing Credits for Parts to be Repaired.—**

The simplest and most correct method of crediting and debiting parts sent to General Stores for repair is to put them always in at the prices of *new* parts. As a matter of fact, they are mostly as good as new until they are done, when they would be at once replaced, and the full cost of the replacement charged as maintenance. If a Depôt Store is credited and the General Store debited with the full price of an article sent for repair, the General Store can debit that article at the same price, say to the Works, if it is sent there for repair; the Works can debit it back to the General Store, also at the same price, when it is returned there after repair. In addition to this, however, the Works would debit direct to the particular Maintenance Account to which the repair applies the time and material expended upon it. This leads to the suggestion that if, at the date of a balance, there is an accumulation of parts to be repaired (which have, of course, been credited at their full value) the estimated cost of such repairs should be charged, by Journal entry, against the year's maintenance. Such an item would, of course, be brought down as a credit to the next year in the General Ledger Account.

All parts in stock which have been repaired, and also all those set aside to be repaired, should be entered in the Stock Sheet as such, and priced at original prices. This is, of course, quite in order, as the replacements would also be charged at the original prices.

**Allocation of Wages of Car Repairers at Depots.—**

The most satisfactory way of allocating these wages against the different Maintenance Accounts is, probably, to provide each man with a return to fill up (Form No. 38), containing a printed list of the titles and numbers of the various accounts. These are, of course, the same accounts as the material used



would be charged to in the Material Returns (Form No. 36). It will be observed that this Time Allocation Return contains spaces to be certified—

(1) By the foreman in charge of the men.

(2) By the Depôt clerk who makes up the Wages Sheet, with which he will compare each man's return.

These would, of course, be weekly returns, and would be made up to the same date as the Wages Sheet. At the Head Office the returns would be arranged according to Depôts, and then sub-arranged according to occupations and rates. This would give for each Depôt a separate bundle of returns for each rate under each occupation. To each bundle would be attached an abstract, showing the total number of hours chargeable to each account number. The totals from these abstracts would be carried into a Wages Allocation Book (Form No. 39), which, as will be seen, has separate columns for the various rates under each occupation. After being extended and balanced with the Wages Sheets, the total amounts for the various accounts (shown in separate columns for Capital and Maintenance) would be posted to the Depôts Expenditure Ledger (Form No. 40), already referred to.

**Return of Consumpt of Gas, Water, Salt, and Sand.—**

It is recommended that for this purpose a Weekly Duplicate Return (Form No. 41) be provided. At the Head Office abstracts of such consumpt would be made up, and averages wrought out. In this way excessive consumpt can be detected. From such records the Gas and Water Accounts would be checked.

## CHAPTER VII.

# WORKS.

As a Tramways undertaking must be run on commercial lines, so also must the Works of a Tramways undertaking, as far, at least, as the exigencies of the work to be done will permit.

The full time of every employee, as well as every piece of material, must be accounted for against the orders for work executed. Separate costs must be kept of the different operations, and, by comparison of these costs with prices of private firms, the General Manager will be enabled to determine as to the work which can more profitably be ordered out.

As car parts are mostly interchangeable, and it is found convenient, and often necessary, to transfer important items of the equipment from one car to another, there can be nothing gained by an attempt to keep separately the cost of all the maintenance of each car. What is more useful is to know the cost of maintaining each portion or section of all the cars and their equipment. The accounts as per list on pages 15-16 have been designed on this principle. Of course, it is necessary to record the overhauling of the cars separately. A special book (Form No. 52) could be kept for this purpose.

**Orders to Works.—**

No orders from other departments of the undertaking for work to be done in the Works would be accepted by the Works Manager, except on official orders (Form No. 42), duly certified.



These orders would only be used for actual work to be done in the Works, and not for goods which could be supplied from the General Store. In the case, for instance, of car parts requiring to be repaired, the best method will be to send such parts to the Works Store—or to the General Store, if there is no Works Store—and for new or repaired parts to be issued from the Store against the usual requisitions. This admits of a larger order being given to the Works for each part or process, thereby ensuring longer runs, and the saving that accompanies systematic and routine work. Orders from the General Store to the Works would also be made out on Form No. 42, duly certified. Such orders would generally be for repairs to damaged or partly worn articles accumulated in the General Store from the various Depôts. All orders received at the Works Office would be entered into a Works Order Book (Form No. 43). This book would contain a complete record of all orders to the Works, and their execution, embracing Works Order number, the number and date of each order received and its department, also car number, account number, job number (when a separate cost is desired), "A" for accident and "O" for ordinary maintenance, and date completed. The column headed "Foremen's Instructions Issued" would be for entering the page numbers of "Instructions to Works Foremen," which would be made out from a duplicate book (Form No. 44), and certified by the Works Manager. No foreman in the Works would execute any work not included in these "Instructions." As the work would generally be executed by the different departments in stages, each department always having so much in hand, a separate form of "Instructions" would, as a rule, be sent to each foreman. When the work has been completed, the foreman would sign and date the form in the space at the foot. The form would then be sent to the Store with the goods, and would be signed by the storekeeper, who would, where

necessary, dispatch the goods according to the instructions on the form. The number of the Stores Dispatch Note sent with the goods would be quoted on the form of "Instructions," which would then be handed to the Works Office, where the dates of completion and the Dispatch Note number would be recorded in the Works Order Book.

**Receiving Goods.**—

The principle should, at the outset, be laid down that goods will not be received direct into the Works, but must be delivered to a Store. If a fixed place and official are not appointed to receive all goods, and this arrangement be not rigidly adhered to, it will often be impossible to trace deliveries. This, of course, applies to materials which can be kept inside a store. Bulky material, such as wood, will probably require to be kept *outside* the Store. It should, however, be stored so that all and sundry will not have free access to it. The receivals at the Store are dealt with in Chapter IV. All goods not received into the Store would be entered into a Duplicate Goods Received Book (Form No. 45). The perforated originals from this book would be sent to the Head Office. The entries would be marked off in the Purchase Order Book, and would afterwards be checked with the invoices when these are being allocated, and prices and amounts entered on the receivals forms. It will thus be ensured that what is charged in the General Books against Works Stock Account corresponds with what was actually received at the Works.

**Material Used in Works.**—

Duplicate requisitions (Form No. 35) to the General Store—or to the Works Store, if the General Store is not adjacent—would be made out by the Works foremen for goods which are kept in the Store. On these requisitions would also be entered any goods returned to the Store. The account numbers would be



quoted on the requisitions. For separate costing the special job numbers, as per "Instructions to Foremen" (Form No. 44) would also be quoted. Similar requisitions would also be made out for consumpt of bulky material, such as wood, kept outside the Store. All material used would be entered from the requisitions into a duplicate book, "Returns of Material," and charged against the proper account numbers, material *ex* General Stores being entered on separate sheets from material *ex* Works. Observe the column "A—accident, O—ordinary maintenance," which is the same as in the Depôt Material Returns (Form No. 36). Material returned from Works to Store would be charged on the Works Material Returns against General Store from the requisitions (Form No. 35), and would be described "S," meaning scrap, or "G," good, in the column for the purpose. The entries in the Material Returns *ex* Store would be posted to, and priced from, the General Stores Stock Accounts, kept in the Head Office, and the Material Returns (*ex* Works) would be posted to, and priced from, the Works Stock Accounts (Form No. 47).

**Stock Accounts.**—

The following examples show the method of keeping Works Stock Accounts:—

**Form No. 47.** STOCK ACCOUNTS.

**1.** RECEIVED. ½" SQUARE EX. BEST IRON. USED. **1.**

| Date | Goods Received Book Page | From whom Received | Quantity | Weight Tons | Weight Cwts. | Weight Qrs. | Weight lbs. | Rate | Amount £ | s | d | Date | Material Returns Page | | Quantity | Weight Tons | Weight Cwts. | Weight Qrs. | Weight lbs. | Rate | Amount £ | s | d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1902 April 18 | 240 | To P. & W. MacLellan, Ltd. .. | 42 Bars | 0 | 5 | 0 | 7 | £6 15s. Ton. | 1 | 14 | 2 | 1902 April 23 | 280 | By Consumpt (including waste) .. | 20 Bars | 0 | 2 | 1 | 0 | £6 15s. Ton | 0 | 15 | 2 |
| | | | | | | | | | | | | May 31 | .. | By Stock .. .. | 22 " | 0 | 2 | 3 | 7 | Do. | 0 | 19 | 0 |
| | | | 42 Bars | 0 | 5 | 0 | 7 | | 1 | 14 | 2 | | | | 42 Bars | 0 | 5 | 0 | 7 | | 1 | 14 | 2 |
| June 1 | .. | To Stock .. .. | 22 Bars | 0 | 2 | 3 | 7 | £6 15s. Ton | 0 | 19 | 0 | | | | | | | | | | | | |

**2.** RECEIVED. ASH BOARDS AND PLANKS. USED. **2.**

| Date | Goods Received Book Page | From whom Received | Quantity | Contents Cubic feet | Contents Cubic inches | Rate £ | s | d | Amount £ | s | d | Date | Material Returns Page | | Quantity | Contents Cubic feet | Contents Cubic inches | Rate | Amount £ | s | d |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1901 June 1 | .. | To Stock .. .. | 305210 Sup. ft. (@ 5¾d.) | 4247 | 86 | 3/3 Cub. ft. | | | 690 | 5 | 1 | 1901 Dec. 31 | 300 | By Consumpt (including waste) | .. | 320 | 10 | 3/3 Cub. ft. | 52 | 2 | 8 |
| Sept. 3 | 260 | " John McKechnie & Son. .. | 1439[illegible] Sup. ft. (@ 4¾d.) | 625 | 3 | " | | | 101 | 12 | 1 | 1902 May 31 | .. | By Stock .. .. | .. | 4552 | 1[6] | " | 739 | 14 | 6 |
| " | " | " Do. do. .. | | | | | | | 791 | 17 | 2 | | | | | 4872 | 11[6] | | 791 | 17 | 2 |
| | | | | 4872 | 11[6] | | | | | | | | | | | | | | | | |
| 1902 June 1 | .. | To Stock .. .. | .. | 4552 | 1[6] | 3/3 Cub. ft. | | | 739 | 14 | 6 | | | | | | | | | | |



In dealing with timber in Stock Accounts, care must be taken to keep all entries of the same nature on one basis, and it will be found usually more satisfactory to treat in cubic feet all hardwoods, planks, flitches, and logs that are likely to be cut up.

The debit side would be posted from the Goods Received Book (Form No. 45), and the credit side from the "Returns of Material" (Form No. 46).

If, in the Material Returns (*ex* Works) there are numerous entries charged to a large variety of account numbers, it will probably be advisable, instead of posting direct to Stock Accounts, to first of all make at the end of the week's returns an abstract of the entries, showing the total quantity or weight, and the amount for each distinct item of material distinguishable by its article number, and only post these totals to the Stock Accounts. It may be thought impossible to keep Stock Accounts, say, for timber, but there is nothing to prevent this being done with reasonable accuracy. Requisitions should be made out for all that is used, including waste. In the General Ledger separate Stock Accounts would be kept for Car Works Stock and General Stores Stock, and the transfer entries at the end of the year would be obtained as per examples on pages 107-108.

**Allocating Tradesmen's Time.—**

For this purpose, it is recommended that a timekeeper go round the employees, say twice daily, and obtain from each employee an allocation of his time against the different account numbers, job numbers, or car numbers upon which he has been engaged. From the employees' dictation the timekeeper would record the particulars of the time on Time Allocation Returns (Form No. 48), perforated in such a way that, when divided into separate portions, each portion will contain time chargeable only to one account. A separate form would be used for each worker. These Returns would be checked with the Wages

Sheet (which would be made up separately, as explained in Chapter III.), and certified in the space for the purpose. At the Head Office the Returns would be separated at the perforations and classified, each bundle containing the strips chargeable to one account for a certain class of tradesmen at a particular rate of wages. All that remains would be for the total number of hours for each bundle to be summed up and written on the front, all the bundles applicable to each account placed together, and the totals copied into a Wages Allocation Book (Form No. 49). The hours would there be extended at the various rates under which they are entered, and the gross summations carried into the total columns headed "Maintenance" and "Capital" respectively. The grand total of the Wages Allocation Book, as well as the totals for the various classes of employees, would be balanced with the Wages Sheet.

**Expenditure Ledger.—**

This book would be ruled as per Form No. 50. The accounts would be principally Car Maintenance and Construction Accounts, *vide* pages 15 and 16, with any additional accounts as required. It will be observed that there are separate columns for Wages and Material, and that there is a special column for credits. The material (debits and credits) would be posted from the Material Returns (Form No. 46). The wages would be posted from the Wages Allocation Book (Form No. 49). The total postings in this Ledger would be balanced with the aggregate of the Material Returns and the Wages Allocation Book. It is recommended that periodical statements be made up from this Ledger, showing the amount of wages and material expended on each account. All the accounts for car maintenance would be grouped together, as would also those for other sections of work. The cost of car maintenance at the Works thus brought out, added to the cost



of car maintenance at the Depôts as per Depôts Expenditure Ledger (Form No. 40), would give the total cost. This total cost, as well as the amounts for the various sections or parts that go to make it up, if divided by the average number of cars in use, or by the car mileage, will give averages, which will be found useful for comparison and guidance. The cost of car maintenance at the various Depôts, apart from the Works, can be compared on the same lines.

**Cost Book.—**

It will be found necessary for various purposes to arrive at accurate costs for different operations or jobs. Any piece of work to be separately costed would be given a special job number in the "Instructions to Foremen." The time spent on the job would be given to the timekeeper against the job number by the employees engaged on it. On the requisitions for material the job number would also be quoted. The time and material would be recorded in the Cost Book (Form No. 51), in which a number of pages would be reserved for entering successive costs of repeated work.

**Record of Car Wheels.—**

In order to have a record of the service got out of car wheels, which are sometimes guaranteed by makers to run a certain mileage, and which form one of the most important items of car maintenance, a duplicate book (Form No. 53) might be used at the Works for advising the Head Office of all wheels taken off and put on. From these returns the official Car Wheels Record (Form No. 54) would be written up. The figures for mileage and car hours in this record would be got as explained on pages 24-25.

**Premium System of Wages.—**

It may be cheaper to get certain work done by piecework than on ordinary time.* A piecework job may yield the worker, say, £5, equal to 1/- an hour, but when he did the same job on ordinary time, say, at 8½d. an hour, he probably spun it out so that it cost £6, or even more. That is to say, the piecework plan pays both employer and worker—the one may earn more per hour, and the other may get the job done cheaper. But the piecework system has its disadvantages. A price is fixed for the job. The employer has that price to pay, no matter how quickly the work is done. True, if it should appear that the price is too high, it can be broken. But the worker soon gets to know up to what limit he can bring his earnings without having the price broken. Beyond that limit, therefore, the employer can expect no cheapening of the cost of production under the piecework system. The Premium system has been devised to enable both employer and worker to share in the benefits of all time saved. It is applicable to all work which can be done on the piecework system. Instead of a price, a certain time is fixed for the job. This time is a fair *average*, based on actual experience of the period required for the work on ordinary time. The following is a comparison of the operation of two methods of calculating the premium.

* *Vide* page 32.



TIME ALLOWED 20 HOURS. RATE 9D. PER HOUR.

| Man | Time taken (hours) | Time saved (hours) | Wages | A Premium = time taken (or net wages) × time saved ÷ time allowed | | | | B Premium = one-half of time saved @ ordinary rate per hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Premium | Total Earnings | Total Earnings per hour wrought | Saving to Employer | Premium | Total Earnings | Total Earnings per hour wrought | Saving to Employer |
| 1 | 20 | Nil | 15/0 | $\frac{5}{20}$ of 11/3 = 2/10 | 15/- | 9d. | .. | 2½ hrs. @ 9d. = 1/10 | 15/- | 9d. | .. |
| 2 | 15 | 5 | 11/3 | $\frac{10}{20}$ of 7/6 = 3/9 | 14/1 | 11·27d. | 11d. | 5 hrs. @ 9d. = 3/9 | 13/1 | 10·46d. | 1/11 |
| 3 | 10 | 10 | 7/6 | $\frac{15}{20}$ of 3/9 = 2/10 | 11/3 | 13·5d. | 3/9 | 7½ hrs. @ 9d. = 5/7 | 11/3 | 13·5d. | 3/9 |
| 4 | 5 | 15 | 3/9 | | 6/7 | 15·8d. | 8/5 | | 9/4 | 22·4d. | 5 8 |

This table shows that, under both systems, the greater the time saved, the higher are the worker's earnings per hour, and the lower the total cost of the work. Under system A, however, the time saved up to one-half of the time allowance benefits the workman more than the employer; while the advantage, *after* the time saved exceeds one-half of the time allowance, begins to go to the employer. System B shows the time saved being shared equally by employer and workman, and this system is here recommended as more satisfactory on that account. The following conditions are suggested for the operation of such a Premium system:—

(1) A time allowance would be fixed for the job. This time allowance would be, as nearly as possible, what an average workman, not on piecework, would take to the work, or the equivalent in hours of the present piecework rates. The time allowance *would not be reduced* except in special circumstances—such as the introduction of changed methods, &c. The time allowance would include all time required for setting up machines and obtaining tools and materials, but any extraordinary delay for which the workman is not responsible would be added to the time allowance.

(2) The workman would be paid at his ordinary rate per hour, and premium would be added at this rate for one-half the number of hours saved from the time allowance. The time taken would include any overtime as ordinary time.

(3) The foreman or Works Manager would certify—

(*a*) The time when a premium job is commenced and finished.

(*b*) The workmanship of the job, which he would carefully examine.

# CHAPTER VIII.

## PERMANENT WAY AND ELECTRICAL EQUIPMENT OF TRACK.

### I.—PERMANENT WAY.

**Sections, &c.—**

THE obvious requirement in connection with the recording of expenditure on Permanent Way is that it be accurately allocated between Repairs, Renewals, and Capital. In addition to this, however, it will be found of advantage to charge the work against different sections of line. The whole track would be divided into sections according to the car traffic passing over them, each section from end to end having a uniform service. In this way the cost of maintaining lines carrying certain services can be ascertained. Of course, there is the disturbing factor of ordinary vehicular traffic. Notwithstanding this, however, the data obtained by sectional allocation is very serviceable.

A numerical list of sections may, perhaps, be most suitably arranged according to the age of the lines. According to this method, the numerical order of the sections may, of course, be quite different from their sequence on the streets; but under any system of numbering they could not very well be made to run consecutively from end to end of long arterial lines, into which other lines converge. The following scheme is recommended:—

Sections (Passenger Lines) may be arranged in numerical order, according to age and car service. These will exclude junctions, and will be referred to as S.1., &c. The list might be arranged as follows:—

| Section No. | Date Opened for Traffic | Streets | Act under which constructed | Street or Road Authority in whose area lines are laid | Within City Boundary | | | | | | | | | | | | Beyond City Boundary | | | | | | | | | | | | Year in which constructed or last renewed | Car Service (Minutes) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Double | | | Single | | | Crossings, Sidings, &c. | | | Double | | | Single | | | Crossings, Sidings, &c. | | | | | | | | | |
| | | | | | M | F. | Yds | M | F. | Yds | M. | F. | Yds | M. | F. | Yds | M. | F. | Yds | M. | F. | Yds | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Junctions.—These would also be numbered, and would be referred to as J.1, &c.

Depôt Connections (Non-Passenger).—These may be given a number for each portion. They will include the lines from the Depôt gate to the junction with passenger line, and will be referred to as D.C.1, &c.

A complete street index of the Permanent Way system would be required, arranged as follows:—

**A.**

Section No. 105. Abercrombie Street—From Gallowgate J. 42 southwards.
" " 50. Albert Bridge.....The whole—see Crown Street.
" " 115. Alexandra Parade....From Castle Street, J. 33 to Cumbernauld Road.

**B.**

Section No. 105. Bellgrove Street..From Duke Street J. 36 to Gallowgate J. 42.

**Time.**—

To allocate the time of all men engaged on the streets, Time Allocation Returns (Form No. 56) might be used. A separate return would be used for each man. The returns would be made up by timekeepers, who would obtain the particulars from each man, and the returns would be arranged for speedy reference in the numerical order of each squad. The men's numbers on the returns would correspond with the numbers in the Wages Sheet. Every man would know his number, having, as explained in Chapter III., to hand up, in exchange for his wages, a metal check bearing his number. The Wages Sheet would be written up from the Time Allocation Returns.

The manner of allocating the time from the returns would be as explained in connection with allocation of time of Works employees (see pages 63-64).

**Yards or Stores.—**

For the carrying on of the permanent way work special stores or yards are essential for accommodating reserve stocks, and as distributing centres for such materials as cannot be conveniently delivered direct to the jobs. At each yard or store there should be a lorry weighing machine, and, of course, a weigher, who would also act as clerk.

**Requisitioning Materials.—**

New material required would be requisitioned from a triplicate book (Form No. 22), and ordered by Purchasing Department, as explained in Chapter IV.

**Receivals at Yard.—**

All materials delivered at yards by firms from whom they are purchased should be accompanied by an Advice Note, and also, where necessary, by a Police Weight Ticket. All receivals would be entered in duplicate book (Form No. 57). The perforated originals from this book would be sent daily to Head Office along with signed Advice Notes and Weight Tickets. After being checked with the latter, the entries in the originals from the Receivals Book would be copied into a Yard Receivals Allocation Book (Form No. 58). The entries in this book would be promptly priced from allocated invoices.

All scrap which comes out of the streets and is sent to yard should be entered into a Scrap Dispatched Book (triplicate), Form No. 37. The original and duplicate would be sent with



the scrap to the yard. The original would be signed by the receiver at the yard, and returned to the sender, who would mark on the triplicate retained in the book the date when he received back the signed original. The original would then be sent to Head Office, and the duplicate retained at the yard. Such receivals would, of course, be entered in Yard Receivals Book (duplicate), and from the Receivals Forms would be carried into Yard Receivals Allocation Book, credited to the Permanent Way Sections in Expenditure Ledger (Form No. 65), and ultimately given effect to in the general books.

**Receivals on Streets.—**

The Advice Notes or Police Weight Tickets, which should accompany all material delivered on streets by firms from whom they are purchased, should, after being signed for by receiver (foreman), be sent to Head Office. From the allocated invoices extended entries for such receivals should be made in a Streets Receivals Allocation Book (Form No. 61). Materials received on streets from yard would be accompanied by a duplicate Dispatch Note, which would be signed by the receiver (foreman), and returned *viâ* yard, where its receipt would be recorded on original retained in book, to Head Office. As these materials would be extended in Issues Allocation Book (Yard), Form No. 60, it would save extending them in detail in Receivals Allocation Book (Streets) if the totals only for such materials were copied from the former book into the latter.

**Issues from Yard.—**

As stated, a Dispatch Note should accompany each consignment from yard. From the Signed Dispatch Notes all the issues would be entered into Yard Issues Allocation Book (Form No. 60). To avoid pricing and extending separate entries it is recommended that the columns, as shown, be ruled

only for quantities and weights, and that only the monthly totals be priced and extended. For pricing this book it will be found that average rates for the goods issued can be readily arrived at from priced Stock Accounts (Form No. 64), afterwards mentioned.

**Consumpt on Streets.—**

From the Yard Dispatch Notes, and from Advice Notes sent with goods delivered direct on streets by firms from whom they are purchased, it is impossible to allocate the materials direct to sections on which they are used. To each section will generally be transferred the surplus materials from the previous job, and there will generally be an unused balance to be sent elsewhere after the work is done. It is, therefore, necessary that weekly returns be made of the exact materials *used* for each job. These returns, which should be from a duplicate book, would be so made up, as shown in Form No. 62, that all the entries they contain could be compared with Dispatch Notes and invoices. It will be observed that balances of goods transferred to and from the job are shown. After these returns have been checked, the totals of the various materials used for each job would be carried from them into the Streets Consumpt Allocation Book (Form No. 63). The entries in this book would all be separately priced, at average prices taken from Stock Accounts, and extended.

**Stock Accounts.—**

If, in connection with a store which is contained within four walls, and from which everything is issued by a storekeeper, it is deemed necessary that accounts should be kept showing the exact stock of every item of material on hand, there is undoubtedly even greater need for such accounts in connection with permanent way materials, which may be kept partly in open yards and partly on the streets. The principle should,



therefore, be laid down that stock, *wherever located*, will be recorded in Stock Accounts (Form No. 64). The manner of keeping these would be as follows:—

Separate Stock Accounts would be kept for materials in yard as distinct from materials on streets.

To the Yard Stock Accounts would be debited and credited the monthly totals from the Receivals Allocation Book (Yard), and the Issues Allocation Book (Yard) respectively. To the Streets Stock Accounts would be posted the monthly totals of the Receivals Allocation Book (Streets) and the Consumpt Allocation Book (Streets) respectively. The stock both in yards and on streets would be taken quarterly, and the quantities as per the Stock Sheets compared with the balances of the Stock Accounts.

**Permanent Way Expenditure Ledger.—**

From the Wages Allocation Book (Form No. 56) and the Streets Consumpt Allocation Book (Form No. 63) would be posted to the Accounts for Sections, Junctions, &c., in the Expenditure Ledger (Form No. 65) the amounts for wages and material under the headings "Repairs," "Renewals," and "Extensions." Material taken out of one section and used on another would be entered in a Transfers Book, and posted to the *Dr.* and *Cr.* of the proper Section Accounts in the Expenditure Ledger. Periodical statements (Form No. 66) would be made up from the Expenditure Ledger, showing the wages and material expended on each section under Repairs, Renewals, and Capital.

**Material Supplied to Contractors.—**

Where contracts are let for the laying or renewing of lines, and materials are supplied to the contractors at the latter's risk, a method of charging the contractor with any such materials stolen or damaged on the streets has been to frame

the specification so that the contractor's quoted prices will *include* the price of the materials at arbitrary rates stated in the specification. By this method the measurement for the work will include a charge for both materials and labour, according to the quantities ascertained by measurement as having been used, and the contractor will be debited with the full amount (at the specification prices) for all the materials with which he has been supplied. The result is that any excess beyond quantities used as per measurement is paid for to Tramways undertaking at the arbitrary specification prices instead of at actual cost prices. A simpler and more accurate method of charging materials supplied to contractors is to have the quoted prices cover only all that the contractor is to supply, and for the Tramways undertaking to render accounts—preferably monthly accounts—for all materials supplied to contractor. At the conclusion of the contract the quantities ascertained by official measurement as having been used in the work would be deducted, along with any surplus material returned, from the total of these accounts, and the balance should form a deduction from the amount of the measurement.

Material sent from yard to contractors on streets would be accompanied by two Dispatch Notes, one to be retained by contractor, and the other to be signed and returned *viâ* yard to the Head Office. From these Yard Dispatch Notes entries would be made, as already explained, in Issues Allocation Book (Yard), and posted to Contractor's Account (Form No. 67), a separate account being kept for each contract. Material delivered to contractors by firms from whom it is purchased by Tramways undertaking would be accompanied by Advice Notes or Weight Tickets, of which there should be two copies, one for contractor and one for Tramways undertaking, and the invoices allocated accordingly, and posted also to the Contractors' Accounts. Any materials, whether new or scrap,



returned to yard by contractors would, of course, be entered in Yard Receivals Book, and from the originals out of same copied into Receivals Allocation Book (Yard), and the new material posted as credits to Contractors' Accounts.

**Redressed Setts.**—

From a statement showing the weights of setts redressed and loads of broken metal and chips produced from redressing, and the allocation of all these from sections out of which they came to sections on which they have been used (or to yard, if removed there), transfer entries would be made in the Section Accounts and Yard Account in the Expenditure Ledger, and these would be priced at net values, as under:—

| | Purchase Value to Undertaking | Wages to be expended | Net Value |
|---|---|---|---|
| Redressed Setts .. | 20/- ton | 2/6 ton | 17/6 ton |
| Broken Metal .. .. | 4/8 ,, | 1/8 ,, | 3/- ,, |
| Chips .. .. .. | 4/8 ,, | 1/8 ,, | 3/- ,, |

All wages for redressing and breaking would be debited to a special Wages Redressing Account. From a statement showing the weights of setts redressed, and loads of broken metal and chips produced from redressing, and also the weight or number of loads used on each section, or sent to yard, transfer entries would be made crediting Wages Redressing Account and debiting Section Accounts, or Yard Accounts, as the case might be.

Under this arrangement redressed stones, broken metal, and chips sent to yard would be priced at the full purchase prices, *including* wages, and, when issued, would be charged out at those *inclusive* rates.

Wages spent in redressing stones which have been sent undressed to yard will be charged against Wages Redressing Account in Expenditure Ledger.

The following entries illustrate the method of dealing with redressed setts in the Permanent Way Expenditure Ledger:—

*Dr.* REDRESSED SETTS. *Cr.*

| | Stones and Metal at Net Value | | Wages Redressing and Breaking | | | | | | | Stones and Metal at Net Value | | Wages Redressing and Breaking | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Per Ton | £ | s | d | Per Ton | £ | s | d | | Per Ton | £ | s | Per Ton | £ s d |
| SECTION 1. | | | | | | | | | SECTION 1. | | | | | |
| To 10 Tons Redressed Stones (taken out of this Section) .. .. .. .. | 17/6 | 8 | 15 | 0 | 2/6 | 1 | 5 | 0 | By 20 Tons Redressed Setts (product of Stones taken out of this Section for Redressing, some used on this Section, and some transferred to Section 2, and to Yard).. | 17/6 | 17 | 10 | 0 | |
| " 2 " Broken Metal and Chips (from Redressing Setts in this Section) | 3/- | 0 | 6 | 0 | 1/8 | 0 | 3 | 4 | " 5 " Broken Metal (product of Section and treated as above) .. .. .. | 3/- | 0 | 15 | 0 | |
| SECTION 2. | | | | | | | | | | | | | | |
| To 7 Tons Redressed Stones from Section 1 | 17/6 | 6 | 2 | 6 | 2/6 | 0 | 17 | 6 | | | | | | |
| " 3 " Broken Metal and Chips .. .. | 3/- | 0 | 9 | 0 | 1/8 | 0 | 5 | 0 | | | | | | |
| YARD ACCOUNT. | | | | | | | | | | | | | | |
| To 3 Tons Redressed Setts from Section 1 .. | 17/6 | 2 | 12 | 6 | 2/6 | 0 | 7 | 6 | | | | | | |
| | £ | 18 | 5 | 0 | | £2 | 18 | 4 | | £ | 18 | 5 | 0 | |



*Dr.* WAGES REDRESSING & BREAKING ACCOUNT. *Cr.*

| | Stones and Metal at Net Value | | Wages Redressing and Breaking | | | | | | | Stones and Metal at Net Value | | Wages Redressing and Breaking | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Per Ton | £ | s | d | Per Ton | £ | s | d | | Per Ton | £ | s | Per Ton | £ s d |
| To Redressing 20 Tons taken out of Section 1 | .. | .. | | | 2/6 | 2 | 10 | 0 | By 10 Tons Redressed Setts to Section 1 | .. | .. | | 2/6 | 1 5 0 |
| " Breaking Metal, 5 Tons @ 1/8 .. .. | .. | .. | | | 1/8 | 0 | 8 | 4 | " 2 " Broken Metal and Chips to Section 1 .. .. .. | .. | .. | | 1/8 | 0 3 4 |
| | | | | | | | | | " 7 " Redressed Setts to Section 2 | .. | .. | | 2/6 | 0 17 6 |
| | | | | | | | | | " 3 " Broken Metal and Chips to Section 2 .. .. .. | .. | .. | | 1/8 | 0 5 0 |
| | | | | | | | | | " 3 " Redressed Setts to Yard .. | .. | .. | | 2/6 | 0 7 6 |
| | | | | | | £2 | 18 | 4 | | | | | | £2 18 4 |

The Excess shown (£2 18s. 4d.) of Debit over Credit represents the exact Expenditure—*i.e*, the Wages.

## II.—ELECTRICAL EQUIPMENT OF TRACK.

This work may be divided into two sections:—

(1) Overhead Department.

(2) Mains Department.

Each of these departments may have a separate store for its materials. Such a store would, of course, be wrought on the same lines as the Depôt Stores, as explained in Chapter VI. A duplicate Goods Received Book would be kept, duplicate requisitions would be used, and the entries on these requisitions would be abstracted into a duplicate Material Returns Book against the proper Ledger Accounts. From these duplicates for receivals and issues, postings would be made to Stock Accounts, kept in the Head Office. The Material Returns would show credits for old material taken out of use. For obtaining an allocation of the men's time, returns (Forms Nos. 68 and 71 respectively) would be used. Each man would fill up a return for his week's time, showing it allocated against the accounts, as printed at the foot of the form. These returns would be abstracted into Wages Allocation Books similar to Form No. 69. The amounts from Material Returns and Wages Allocation Books would be posted to (1) Overhead Department Ledger, as per Form No. 70; and (2) Mains Department Ledger, which would be similar to Form No. 65. The accounts in the Overhead Department Ledger would be the permanent way sections and junctions for all renewal work, and the accounts as at the foot of the Time Allocation Return. Special accounts would, of course, be opened as required. The postings to each Ledger Account would go into the proper sub-division columns.

According to the foregoing system, the cost of overhead renewals on each permanent way section and junction would be



brought out, and as these sections would be arranged according to car service, the cost of renewals *pro ratâ* to car service would be ascertained.

In the case, however, of the ducts and cables, the wear of which is not proportionate to the car service, there can be no object served in attempting to keep the cost of their maintenance or renewals under permanent way sections. The accounts in the Mains Department Ledger would be as at the foot of the Time Allocation Return (Form No. 71), with any special accounts as required.

The operation of the Stores and Expenditure Accounts in connection with the Overhead and Mains Departments would be on the same lines as for the Depôts. See specimen accounts, page 107.

## CHAPTER IX.

## WEEKLY REVENUE AND EXPENDITURE STATEMENT.

THERE can be no doubt that the General Manager should be promptly supplied with the financial results of each week's working in a clear and complete statement of Revenue and Expenditure. A return, such as Form No. 72, is suggested for this purpose. The figures for Traffic Revenue, Number of Cars, Mileage, and Passengers would be taken from the Traffic Abstract (Form No. 6). In entering up the expenditure, the Weekly Wages Voucher would first of all be taken, and all the wages exclusively applicable to Working Expenses entered in the Revenue and Expenditure Statement opposite the proper items. Salaries would be entered in the same way. In the case of those departments of the undertaking which carry out work that requires allocation, the amounts for time and material chargeable as working expenses would be entered in the Weekly Revenue and Expenditure statement from the subsidiary Ledgers in which such work is recorded. Items such as Oil, Waste, and Supplies, and Material for Cleaning and Oiling Cars would be charged according to the exact consumpt recorded in the Weekly Returns of Material received from the Depôts and Power Station, *vide* Chapters V. and VI. The items under General Expenses will not vary from week to week, and may be taken as the proportion for the week of the annual



amounts. This method would also be adopted for such charges as Licenses, Depreciation, Interest, and Sinking Fund. The premium for third party accident insurance, if chargeable on the basis of the number of cars or mileage, may be put in each week at its exact amount. For permanent way, the exact cost of repairs as per the Permanent Way Expenditure Ledger (Form No. 65) would be taken, and there would also be charged the weekly proportion of the annual amount set aside to meet renewals.

In this statement the average per car mile and the percentage of expenditure to receipts would be shown for each amount; and for the items of Power Expenses, the average per K.W. hour would be shown in addition. The corresponding averages for the previous week, and for the last financial year, as per the published report, would also be given for comparison.

The surplus each week would be carried forward to the next week's statement, so that every statement would show the balance up to date from the beginning of the financial year.

The particulars embodied in the statement regarding Electrical Energy and Fuel will be found very serviceable in conjunction with the figures for the expenditure.

This Weekly Statement of Receipts and Expenditure will show the General Manager at a glance exactly how his week's working has turned out, and what its bearing is on the year's results. He will thus be enabled to deal with excesses promptly, and to regulate the service and the expenditure generally. It is in the up-to-date character of such a statement that its greatest value lies. Long-delayed figures, showing excesses or irregularities which *might* have been checked, but were not, illustrate to the General Manager the impotence of tardy accounting.

## CHAPTER X.

## GENERAL BOOKKEEPING.

THE subsidiary work, as treated sectionally in the foregoing chapters, is naturally followed by some remarks on the General Bookkeeping up to which it leads.

**Bank Accounts.**—

The following suggestions regarding Bank Accounts apply to a Corporation undertaking which is responsible for its own cash. There would be one account in name of the undertaking, and another in name of the General Manager. To the credit of the first account would be lodged all receipts of whatever nature. All amounts received each day would be lodged the following day. No cheques would be drawn on this account for sums under £50. The cheques drawn on this account would be signed by a member of the Finance Committee and the General Manager. A list of the members of this Committee, with their signatures, would be supplied annually to the bank. The General Manager's Account would be for drawing, by cheques signed by the General Manager, cash for wages, petty expenses, and accounts under £5, and for cheques, also signed by the General Manager, in payment of accounts under £50. The account would be regularly recouped by cheques drawn on the account in name of the undertaking, and payable to the General Manager's Account. Except for wages or salaries, no cheque would be drawn on this account for more than £50, and the account would not be overdrawn.



**Finance Book.**—

All payments for wages, petty expenses, &c., made by the General Manager between meetings of the Finance Committee would be entered into this book (Form No. 73), and certified by a member of the Committee at the following meeting. All accounts, when being checked, would be stamped as under, and

| | |
|---|---|
| Goods Received .. .. .. .. .. | ..... ..... |
| Prices Checked .. .. .. .. .. | ..... |
| Extensions Checked .. .. .. .. | ..... |
| Contracted for .. .. .. .. £ | ..... |
| Not Contracted for .. .. .. .. £ | ..... |
| Accountant .. .. .. .. .. .. | ..... |

Certified—

.....

*General Manager.*

initialled as to quantities, prices, &c., and afterwards signed by the General Manager. The abstracts attached to the accounts would be stamped as under, and certified by two members of the Committee.

Examined and passed by Committee.

Date.....

| | |
|---|---|
| ..... | ..... |

The accounts would be entered (names and amounts) in the Finance Book, and these entries would be initialled by one member of the Committee. The entries in the Finance Book would be extended in three totals:—

(1) Total payments to be homologated.

(2) Total of accounts over £50 for which cheques on Bank Account of the undertaking are being signed.

(3) Accounts of £50 and under for which one cheque payable to the General Manager's Bank Account is being signed.

The cheques to be signed would be entered in the Finance Book after the above, and in the same order. The total amount of the cheques would be extended, and would agree with the aggregate of the three previous totals.

**Counterfoil Receipt Book.**—

This book (numbered in type) would be for granting receipts for all amounts received in payment of accounts. No receipts would be given except from this book. No counterfoil would ever be torn out. In the case of a spoiled receipt "cancelled" would be written across it in ink, and it would be folded up with the counterfoil. This book would be carefully kept by the cashier.

**Cashier's Scroll Cash Book.**—

An ordinary double money column book may be used by the cashier for his daily entries. He would take over from the Traffic Cash Room every morning the cash checked the previous day, and initial for same. The total amount would be entered on the *Dr.* side of his Scroll Cash Book, and banked along with any other receipts, the bank entry on the *Cr.* side balancing with the total of the *Dr.* entries. This rule should always be rigidly adhered to. All cash required for wages, &c., should be drawn by special cheque.

**Official Cash Book.**—

The official who keeps the cash should, of course, have nothing to do with the General Books. The bookkeeper would carefully check all the entries in the Scroll Cash Book with the



vouchers, Counterfoil Receipt Books, Bank Books, &c. This, to be an effective safeguard, should be kept up to date. He should find an entry in the Scroll Cash Book for each amount. The Cash Book should be merely a summary of all receipts and payments otherwise authentically recorded. The bookkeeper would then transcribe the entries into the official Cash Book (Form No. 74). It will be noticed that there are separate columns for Bank Accounts (*Dr.* and *Cr.*), and that on the *Dr.* side there is also a separate column for Car Traffic Revenue, and on the *Cr.* side for Tradesmen's Accounts. The object of these columns is to admit of monthly totals being posted to the General Ledger instead of having to post each amount separately. The payments of Tradesmen's Accounts as entered in the Tradesmen's column of the Cash Book would be posted to the *Dr.* of the individual accounts in the Tradesmen's Ledger. All entries in the Cash Book would be posted, either separately, or in monthly totals, to accounts in the General Ledger.

**Vouchers.**—

For every payment made by the cashier a receipt would be obtained on a form such as No. 75. This slip would be endorsed on the back as shown, and the names and amounts inserted, as well as the voucher numbers from the Cash Book. The invoices not being attached to the vouchers, the latter will be of uniform size, and will take up little space. They may, therefore, be conveniently kept between cardboards cut to their size.

**Form No. 74.—** CASH BOOK.

*Dr.* CASH.

| Date | Account | | General Ledger Folio | Car Tokens | Traffic Revenue | Bank of —— | Bank of —— (Gen. Manager's A/c.) | |
|---|---|---|---|---|---|---|---|---|
| | | | | £ s d | £ s d | £ s d | £ s d | £ s d |
| 1901 June 1 | To Balance .. .. .. | .. .. .. .. .. | .. | .. | .. | .. | .. | 2,743 3 4 |
| | Car Tokens .. .. .. | Cash received for Tokens sold .. | .. | 13 10 0 | | | | |
| 3 | Bank of Scotland .. .. | Drawn .. .. .. .. .. | .. | .. | .. | 185 15 2 | | |
| | Do. .. .. .. | Do. .. .. .. .. .. | .. | .. | .. | 260 1 2 | | |
| | Do. .. .. .. | Do. .. .. .. .. .. | .. | .. | .. | 12,683 18 9 | | |
| | Do. (G.M. Account) | Do. .. .. .. .. .. | .. | .. | .. | .. | 2,750 0 0 | |
| | Traffic Revenue .. .. | For 1st June .. .. .. .. | .. | .. | 2,347 0 9 | | | |
| | Do. .. .. .. | Shorts for week ending 24th May.. | .. | .. | 6 1 0 | | | |
| | Overs.. .. .. .. | Overs do. do. .. | 280 | .. | .. | .. | .. | 2 13 2 |
| | Fire Insurance .. .. | Royal Insurance Co.—Commission | 78 | .. | .. | .. | .. | 45 17 10 |
| | Do. .. .. .. | Caledonian Insurance Co.—Do. .. | 78 | .. | . | .. | .. | 32 15 7 |
| 4 | Bank of Scotland .. .. | Drawn .. .. .. .. .. | .. | .. | .. | 11,853 1 0 | | |
| | Do. .. .. .. | Do. .. .. .. .. .. | .. | .. | .. | 839 7 2 | | |
| 5 | Do. .. .. .. | Do. .. .. .. .. .. | .. | .. | .. | 360 1 7 | | |
| | Do. .. .. .. | Do. .. .. .. .. .. | .. | .. | .. | 353 14 4 | | |
| 6 | Unpaid Wages .. .. | Returned by Pay Clerks as per Unpaid Wages Book .. .. | 473 | . | .. | .. | .. | 22 9 0 |
| | Electric Cars (R) .. .. | Collected as per Claims Book P/303 .. .. .. .. | 282 | .. | .. | .. | .. | 2 9 0 |
| | Car Requisites (R).. .. | Do. do. .. .. .. | 283 | .. | .. | .. | .. | 0 0 9 |
| | Uniforms (R) .. .. | Do. do. .. .. .. | 284 | .. | .. | .. | .. | 0 1 0 |
| 30 | Car Tokens .. .. .. | Total for Month .. .. .. | 196 | .. | .. | .. | .. | 13 10 0 |
| | Traffic Revenue .. .. | Do. .. .. .. .. .. | 484 | .. | .. | .. | .. | 2,353 1 9 |
| | Bank of Scotland .. .. | Drawn during Month .. .. | 495 | .. | .. | .. | .. | 6,535 19 2 |
| | Do. (G.M. Account) | Do. .. .. .. .. .. | 497 | .. | .. | .. | .. | 2,750 0 0 |
| | | | | | | | | £34,502 0 7 |
| | | Total *Dr.* entries for June .. .. | .. | 34,502 0 7 | | | | |
| | | *Less* Balance for May .. .. | .. | 2,743 3 4 | | | | |
| | | Net Receipts entered Jl. P/ .. | .. | £31,758 17 3 | | | | |



CONTRA. *Cr.*

| Date | Account | | Voucher No. | Tradesmen's Ledger Folio | General Ledger Folio | Tradesmen's Account | Bank of —— | Bank of —— (Gen. Manager's A/c.) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | £ s d | £ s d | £ s d | £ s d |
| 1901 June 3 | Fire Insurance .. .. | Royal Insurance Co. — Gross Premium .. .. .. .. | 1 | .. | 78 | .. | .. | .. | 305 19 0 |
| | Do. .. .. | Caledonian Insurance Co.—Do. .. | 2 | .. | 78 | .. | .. | .. | 218 10 9 |
| | Bank of Scotland .. .. | Lodged .. .. .. .. .. | .. | .. | .. | .. | 2,369 4 11 | | |
| | Do. (G.M. Account) | Do. .. .. .. .. .. | .. | .. | .. | .. | .. | 12,683 18 9 | |
| 4 | Tradesmen's .. .. | National Conduit and Cable Co., Lim. .. .. .. .. | 3 | 220 | .. | 11,853 1 0 | | | |
| | Do. .. .. .. | Do. do. .. .. .. | 4 | 220 | .. | 839 7 2 | | | |
| 5 | Do. .. .. .. | Alex. Stark & Sons .. .. .. | 5 | 470 | .. | 360 1 7 | | | |
| | Do. .. .. .. | British Thomson Houston Co., Lim. | 6 | 69 | .. | 353 14 4 | | | |
| 6 | Wages .. .. .. | Net Amount as per Wages Sheet for week ending 1st June .. | 7 | .. | 42 | .. | .. | .. | 2,662 11 8 |
| 7 | Friendly Society .. .. | Balance for week ending 8th June | 8 | .. | 380 | .. | .. | .. | 35 5 4 |
| | Bank of Scotland .. .. | Lodged .. .. .. .. .. | .. | .. | .. | .. | 44 8 10 | | |
| 30 | Tradesmen's .. .. | Accounts paid during Month .. | .. | .. | 459 | .. | .. | .. | 13,406 4 1 |
| | Bank of Scotland .. .. | Lodged during Month .. .. | .. | .. | 495 | .. | .. | .. | 2,413 13 9 |
| | Do. (G.M. Account) | Do. .. .. .. .. .. | .. | .. | 497 | .. | .. | .. | 12,683 18 9 |
| | BALANCE to July .. .. | .. .. .. .. .. .. | .. | .. | .. | .. | .. | .. | 2,775 17 3 |
| | | | | | | | | | £34,502 0 7 |
| | | Total *Cr.* entries for June .. .. | .. | . | .. | 34,502 0 7 | | | |
| | | *Less* Balance to July .. .. | .. | .. | .. | 2,775 17 3 | | | |
| | | Net Payments entered Jl. P/ .. | .. | .. | .. | £31,726 3 4 | | | |

The above typical entries are ruled off as if for a complete month. The entries in connection with Wages are from the abstract on page 161.

**Allocating Invoices.**—

The invoices, after being checked and summarised where necessary, would have allocation abstracts, as under, affixed:—

ALLOCATION OF INVOICE No.....

| | Capital A/c. certified | £ | s | d |
|---|---|---|---|---|
| Account.. .. | | | | |
| Account.. .. | | | | |
| Account.. .. | | | | |
| Account.. .. | | | | |
| Account .. | | | | |
| Account . | | | | |
| Account.. .. | | | | |
| Account.. .. | | | | |
| Account.. .. | | | | |
| Account . | | | | |
| Account.. . | | | | |
| | Total.. £ | | | |

In allocating the invoices, they would be compared with the duplicates from the Goods Received Books kept at the General Store and other Stores, and the prices entered on the duplicates, thus ensuring that exactly what is debited from invoices to the different Store Accounts in the General Ledger corresponds with what each Store receives from contractors.

**Filing Invoices.**—

The system of pasting invoices into a Guard Book is a laborious one, while the Guard Book is also unwieldy and troublesome for reference. A better system is to place the invoices on a file—preferably a locking file—having side prongs; number them boldly, and keep an index of names and invoice



numbers for the year. The numbers would run from one and up for the whole year.

**Invoice Allocation Book.**—

From the invoices on the file as above-mentioned the numbers, names, amounts, and allocations would be copied into an Invoice Allocation Book (Form No. 76). In the Allocation columns amounts chargeable to Capital Accounts would be marked "*C*" in red, and those for Repair Account "*R*," also in red. Where necessary, the charges to a number of General Ledger Accounts would be entered all in the one column, and abstracted at the foot of that column at the end of the month. The aggregate of the Allocation columns would correspond with the total of the "Total" column for the month. The amount for each individual would be posted to the credit of his account in the Tradesmen's Ledger.

To avoid having too many General Ledger Accounts in the Invoice Allocation Book, purchases (such as fuel) chargeable to a number of separate accounts, may be debited direct to a General Fuel Account, and allocated in a separate book (Form No. 77), the totals of which at the end of the year would be journalised as per entry on page 99.

**Journal.**—

The Journal includes everything, either in totals or in separate amounts, that appears in the General Ledger. The total of the Journal must, therefore, balance with that of the General Ledger, both *Dr.* and *Cr.* The allocated amounts from the Invoice Allocation Book would be journalised monthly as follows:—

| | £ s d | £ s d |
|---|---|---|
| Tradesmen's Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. .. ..<br>For the following amounts as per Invoice Allocation Book, p..... | | |

The Cash Book totals would be journalised as follows:—

| | £ s d | £ s d |
|---|---|---|
| Cash Account .. .. .. .. *Dr.* | | |
| To Sundry Accounts (posted from Cash Book) | | |
| Total *Dr.* entries for month of .....as per Cash Book, p..... .. .. £ | | |
| *Less* Balance brought forward from month of..... | | |
| Net Receipts for month of..... £ | | |
| Sundry Accounts (posted from Cash Book) *Dr.* | | |
| To Cash Account .. .. .. .. | | |
| Total *Cr.* entries for month of .....as per Cash Book, p..... .. .. £ | | |
| *Less* Balance carried forward to month of..... | | |
| Net Payments for month of..... £ | | |

For all amounts to be transferred from one General Ledger Account to another, Journal entries would be made as follows:—

| | £ s d | £ s d |
|---|---|---|
| Permanent Way Yard Account .. .. *Dr.* | | |
| To General Stores Account .. .. .. | | |
| For Amount transferred .. .. .. | | |
| Invoice No..... Name..... for.....charged to Per. Way Yard Account in error instead of to General Stores Account .. .. | | |

For interest included in Bank Accounts, Journal entries would be made, such as:—

| | £ s d | £ s d |
|---|---|---|
| Interest Account (Working Expenses) .. *Dr.* | | |
| To Bank of..... .. .. | | |
| For Interest paid to Bank, as per Bank Book, from .....to..... | | |



As a rule, the foregoing are the only Journal entries requiring to be made, except at balance time, and examples of the entries to be made then are shown in Chapter XI., dealing with Annual Balance. The Journal should be balanced, say, quarterly, with the General Ledger.

**Tradesmen's Ledger (Loose Leaf).—**

A separate account would be kept in the Tradesmen's Ledger (Form No. 78) for each individual from whom purchases are made, or to whom a contract is given. The payments would be posted to the *Dr.* side from the Tradesmen's column on the *Cr.* side of the Cash Book. The amounts of the invoices would be posted to the *Cr.* side of the Tradesmen's Ledger from the Invoice Allocation Book.

A personal Ledger containing hundreds of accounts, it kept as a bound book, causes delay at balance time. Only one clerk can conveniently work at it, or, with difficulty, two. Squaring off accounts, bringing down the balances, and making up lists of same to balance with Tradesmen's Account in the General Ledger is, therefore, a slow process, and tends to delay more important work. It is recommended that this Ledger be kept on the loose leaf principle, and a strong locking file used for the purpose. In this way, the accounts can be distributed, and the work got through much more rapidly.

**General Ledger.—**

The accounts in the General Ledger (Form No. 79) would be, to a large extent, as per the list in Chapter I., pages 12-17, excluding sub-accounts. There would always, of course, be additional accounts and temporary accounts to suit varied conditions and exigencies. The accounts, as in Chapter I., are designed to provide the

figures as required for the annual report. The totals for the month of columns 1, 2, and 3 of the *Dr.* side of the Cash Book would be posted to the *Cr.* side of the accounts in the General Ledger. The totals of the corresponding columns on the *Cr.* side of the Cash Book would be posted to the *Dr.* side of the accounts in the General Ledger. All the amounts in the fourth column of the Cash Book, both sides, would be posted separately into the General Ledger. For an example of a General Ledger Account, ruled off for the year, see Form No. 79. The General Ledger would be balanced quarterly with the Journal.



**Form No. 79.—** GENERAL LEDGER.

GENERAL STORE ACCOUNT.

*Dr.* *Cr.*

| | | | £ | s | d | | | | £ | s | d |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1900 | | | | | | 1901 | | | | | |
| June 1 | J 66 | To Balance Account .. .. | 14,483 | 2 | 0 | May 31 | J 119 | By Sundry Accounts (for Stores issued) | 20,668 | 2 | 5 |
| 30 | J 67 | " Sundry Debtors Account .. .. | 38 | 7 | 2 | " | C.B. 57 | " Amounts realised for Scrap sold .. | 380 | 10 | 6 |
| July 31 | J 70 | " Sundries .. .. .. .. | 3,311 | 13 | 0 | " | J 121 | " Sundry Debtors Account .. .. | 120 | 5 | 0 |
| Aug 31 | J 72 | " .. .. .. .. | 1,790 | 17 | 11 | " | J 125 | " Balance Account (Stock) .. .. | 13,741 | 0 | 5 |
| Sept 30 | J 75 | " .. .. .. .. | 1,706 | 18 | 7 | | | | | | |
| Oct. 31 | J 77 | " .. .. .. .. | 1,305 | 18 | 4 | | | | | | |
| Dec. 31 | J 80 | " .. .. .. .. | 1,932 | 11 | 8 | | | | | | |
| 1901 | | | | | | | | | | | |
| Feb. 28 | J 84 | " .. .. .. .. | 2,481 | 5 | 0 | | | | | | |
| Mar. 31 | J 86 | " .. .. .. .. | 2,864 | 3 | 7 | | | | | | |
| May 31 | J 89 | " .. .. .. .. | 3,120 | 18 | 7 | | | | | | |
| " | J 110 | " Works Stock Account .. .. | 603 | 7 | 6 | | | | | | |
| " | J 115 | " Depots Store Accounts .. | 460 | 9 | 3 | | | | | | |
| " | J 116 | " Permanent Way Expenditure Account .. .. .. | 210 | 5 | 9 | | | | | | |
| | | | £34,309 | 18 | 4 | | | | £34,309 | 18 | 4 |

## CHAPTER XI.

## ANNUAL BALANCE.

THE preceding chapters naturally lead up to this. It goes without saying that the work described in these chapters must be kept as far up to date as possible to facilitate and expedite the balance. Everything that can be done before the close of the financial period should be done. The accountant will look far ahead. Indeed, it may be said that no sooner will one balance be completed than he will be anticipating and preparing for the next. There can be no more mistaken policy than to allow things to get into arrears during the year, and then to attack them at the eleventh hour with feverish haste.

**Stocktaking.—**

One of the things to be seen to well beforehand is stocktaking. For the Depôt Stores, Sheets (Form No. 80) should be prepared. containing the article numbers and descriptions of all the stores which can possibly be in stock. These sheets would be made up from the Stock Accounts kept in the Head Office, and would be priced from these accounts. The stock at each store would be carefully taken by one official and checked by another, and the Stock Sheets would be certified by both. Where the stock is too large to be accurately taken on the closing day of the financial period, stocktaking would be commenced earlier, and any receivals and issues subsequent to stocktaking, and prior to the close of the year, would be added and deducted to bring out the exact stock to be entered in the Stock Sheet. The postings to the Stock Accounts would be



made to the close of the year, as soon as possible thereafter. When the Stock Sheets, with the quantities filled in, are received from the various stores the balances of the Stock Accounts would be entered on them in the column for the purpose, and any discrepancies carefully investigated. After careful checking of stock and postings, entries for differences might be made, as explained on pages 54-55. The actual stocks on hand, as ascertained by careful stocktaking would be extended in the Stock Sheets and brought down as balances in the Stock Accounts. After comparison of quantities with the balances of the Stock Accounts, the Stock Sheets would be extended, and the extensions checked. Each page of the Stock Sheets would be certified, in the spaces for the purpose, as to quantities, prices, and extensions, and would also be initialled by the accountant.

An abstract showing the totals of the various Stock Sheets would be made up after they have been finally completed. It will be found convenient to at once pencil these totals on the credit side of the various accounts in the General Ledger.

There should be no dubiety as to what should be included in the Stock Sheets for the amounts of which credit is to be taken. It may be stated, however, that—

(1) They should not include anything which has been charged to Capital Account.

(2) They should include all stores not in use, which, if not carried down in the Balance Sheet, would, by their amount, make the charges against Revenue for the period too high.

In addition to the Stock Sheets, which will include all goods for which credit is to be taken, an inventory should also be made up, as at the date of the balance, of all plant, &c., under the headings as per the Capital Account. These Inventory Sheets would have columns showing—

(1) Cost Price.

(2) Cost Price, less Depreciation written off.

(3) Present Valuation (based on estimated unexhausted service).

If the present valuation exceeds the depreciated amount at which plant is standing in the Capital Account it will mean, of course, that the rate at which depreciation has been written off has been too high. The danger, however, is rather that the depreciated amount will exceed the present valuation, in which case additional depreciation should be written off. By taking actual inventories in this manner, the following purposes are served:—

(1) That nothing can go amissing without being detected.

(2) That the various amounts in the Capital Account are represented by the tangible assets which they comprise.

(3) That these assets, in proportion to the service still to be got out of them, are not standing at more than their current value in the Capital Account.

**Completing Subsidiary Books, &c.—**

When the closing day of the financial period does not fall on the last day of the wages week, it is advisable to have all Tradesmen's Time Allocation Returns made up to the closing day, so that the Wages Allocation Books can be promptly completed for the full financial period. This applies also to Material Returns. The Permanent Way Expenditure Ledger, the Works Expenditure Ledger. the Depôts Expenditure Ledger, the Overhead Expenditure Ledger, and the Mains Expenditure Ledger should each balance with the Wages Allocation Books and Material Returns from which they are posted. Prior to the close of the year, these Ledgers would be gone over, and the manner of dealing with everything determined. Immediately after the Ledgers have been completed, Journal entries would be made for the amounts they contain. The following examples will indicate generally the form in which these and other Journal entries would be made.



JOURNAL.

| | | £ s d | £ s d |
|---|---|---|---|
| Car Tokens Account .. .. .. *Dr.*<br>For tokens used, as returned by Conductors, from.....to.....<br>To Traffic Revenue Account .. .. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Wages Account (General) .. ..<br>For amounts transferred as per Wages Abstract* for year to....<br>Wages Account (Power Expenses) ..<br>Do. do. (Traffic " ) ..<br>Cleaning Cars Account .. .. ..<br>Oiling Cars Account .. .. .. ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Salaries Account .. .. ..<br>For amount of Salaries for year to....., allocated as per certified statement.<br>Salaries Account (Power Expenses). ..<br>Do. do. (Traffic " ) ..<br>Do. do. (Ticket Check) ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To General Fuel Account.. .. ..<br>For allocation of Fuel Accounts for year to....., as per Fuel Allocation Book.†<br>Fuel Account (Power Expenses) .. ..<br>Permanent Way (Yard) Account .. ..<br>Do. do. (Streets) " .. ..<br>Fuel Account (Car Sheds) .. .. ..<br>&c., &c. | | | |
| Wages Account (General) .. .. *Dr.*<br>To Sundry Creditors Account .. ..<br>For amount of Wages for..... days to....., and unpaid at that date. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Sundry Creditors Account .. ..<br>For the following amounts prior to....., unpaid at that date and not through Invoice Allocation Book:—<br>Light and Water Account (General). ..<br>Electricity Dept. El. Energy £<br>Water " Water ..<br>Gas " Gas ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To General Stores Account .. ..<br>For Material issued from General Stores during year to....., as per abstract of Issues Allocation Sheets.‡<br>Permanent Way (Yard) Account .. ..<br>Do. do. (Streets) " .. ..<br>Car Works Stock Account .. .. ..<br>.....Depôt Store Account .. ..<br>.....Depôt Store Account .. ..<br>&c., &c. | | | |

* *Vide* page 34. † Form No. 77. ‡ Form No. 27.

JOURNAL—*continued.*

| | | £ s d | £ s d |
|---|---|---|---|
| Sundry Accounts .. .. .. *Dr.*<br>To .....Depôt Store Account ..<br>For Material issued from Store (except for Maintenance), as per Issues Allocation Sheets* for year to.....<br>Cleaning Cars Account .. .. ..<br>Oiling Cars Account .. .. .. ..<br>Oil, Waste, and Supplies Account ..<br>(Sub-Station).. .. .. .. ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To .....Depôt Store Account ..<br>For Material accounted for as per Depôts Expenditure Ledger † for year to ..... £<br>*Less* Credits in above returns for Material taken out of use and returned to Depôt Store .. ..<br>£ | | | |
| Depôts Expenditure Account (amount as above) .. .. .. .. ..<br>General Stores Account .. .. ..<br>For Parts and Scrap transferred, as per Transfers Account in Depôts Expenditure Ledger. | | | |
| .....Depôt Store Account .. *Dr.*<br>To.....Depôt Store Account ..<br>For Material transferred from one Depôt Store to another as per Material Transferred Account in Depôts Expenditure Ledger. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Depôts Expenditure Account ..<br>For work done by Car Repairing Staffs at Depôts for year to...., as per Depôts Expenditure Ledger.<br>Electric Cars Account (R), and any other accounts for which Depôt Staffs have done work. | | | |
| Works Expenditure Account .. *Dr.*<br>To Works Stock Account.. .. ..<br>For all Material accounted for in Works Expenditure Ledger (*less* Credits for parts taken out of use and returned to General Store). | | | |
| Works Expenditure Account .. *Dr.*<br>To Works Oncost Account .. ..<br>For total Amount of Oncost Account transferred. | | | |

* Similar to Form No. 27. † See page 53.



JOURNAL—*continued.*

| | | £ s d | £ s d |
|---|---|---|---|
| Sundry Accounts .. .. .. *Dr.*<br>To Works Expenditure Account ..<br>For the following amounts expended during year to....., as per Works Expenditure Ledger:— | | | |

| Account | Material | Wages | Oncost |
|---|---|---|---|
| | £ s d | £ s d | £ s d |
| New Cars Account (Capital) .. ..<br>Maintenance of Cars Account .. ..<br>Power Station Plant Account .. ..<br>&c., &c. | | | |

| | | £ s d | £ s d |
|---|---|---|---|
| Permanent Way Account (Streets) *Dr.*<br>To Permanent Way Account (Yard Stock) .. .. .. .. ..<br>For Material dispatched to Streets (exclusive of Contractors' Jobs) for year to....., as per Permanent Way Dispatch Allocation Book (Yard).* | | | |
| Alex. Stark & Sons, Contractors .. *Dr.*<br>To Permanent Way Account (Yard) ..<br>For Material dispatched for year to....., as per Permanent Way Dispatch Allocation Book (Yard), and also Permanent Way Contractors' Account.* | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Alex. Stark & Sons, Contractors ..<br>For Material used by above and chargeable to accounts as under for year to.....:—<br>Permanent Way Account (C) .. ..<br>Do. do. Renewals Account ..<br>Rail Bonding Account (C) .. .. ..<br>Ducts Account .. .. .. .. .. | | | |
| Permanent Way Sundry Sales Account *Dr.*<br>To Sundry Accounts .. .. ..<br>For chargeable Wages and Material (old and new) for year to....., as per—<br>(1) Yard and Streets Dispatch Allocation Books.<br>(2) Permanent Way Expenditure Ledger.<br>Permanent Way Account (Yard Stock)..<br>Do. do. " (Streets Stock)<br>Do. do. Expenditure Account.. | | | |

* See pages 74-77.

JOURNAL—*continued.*

| | | £ s d | £ s d |
|---|---|---|---|
| Permanent Way Expenditure Account *Dr.*<br>To Permanent Way (Streets) Account..<br>For Material used, as per Permanent Way Allocation Consumpt Book (Streets). | | | |
| Permanent Way Account (Yard) .. *Dr.*<br>To Permanent Way Account (Streets)..<br>For Material returned from Streets to Yard, as per Permanent Way Yard Receivals Book and Yard Account in Permanent Way Expenditure Ledger. | | | |
| Permanent Way Yard Account .. *Dr.*<br>To Permanent Way Expenditure Account .. .. .. ..<br>For Scrap produced from operations on Permanent Way and sent to Yard as per Permanent Way Allocation Consumpt Book (Streets). | | | |
| Permanent Way Expenditure Account *Dr.*<br>To Permanent Way Oncost Account ..<br>For total amount of Oncost Account transferred. | | | |
| Lighting Cars Account .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For proportion of Accounts as under applicable to production of Current for Lighting Cars.<br>Salaries and Wages (Power Expenses):—<br>Total K.W. Hours .. K.W. Hours for Lighting Cars £<br>Fuel Account (Power Expenses):—<br>Total K.W. Hours .. K.W. Hours for Lighting Cars £ | | | |
| Works Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For proportion of Accounts applicable to production of Current for Works.<br>Detail as per previous entry.) | | | |
| Permanent Way Expenditure Account *Dr.*<br>To Permanent Way Renewal Fund ..<br>Annual charge for Permanent Way Renewals unexpended and placed to credit of Renewal Fund, .....miles single track at £..... per mile. | | | |



JOURNAL—*continued.*

| | | £ s d | £ s d |
|---|---|---|---|
| Sundry Accounts .. .. .. *Dr.*<br>To Permanent Way Expenditure Account .. .. .. ..<br>For Work executed by Permanent Way Department during year to....., as per Permanent Way Expenditure Ledger:— | | | |
| REPAIRS. | | | |
| Section \| Material £ s d \| Wages £ s d \| Oncost £ s d | | | |
| &c., &c. | | | |
| General Reserve Fund .. .. *Dr.*<br>To Horse Cars Account (C) .. ..<br>For Loss on.....Horse Cars sold during year to.....<br>Cost at £ each .. £<br>*Less* Depreciation already written off .. ..<br>*Less*—Realised .. ..<br>Loss chargeable to General Reserve Fund .. .. | | | |

An entry on the same lines as the above would be made for any other plant sold or rendered useless.

The accounts in the Tradesmen's Ledger, after being posted, *Dr.* and *Cr.*, up to the closing day of the period would be squared off, and the balances brought down. These balances would be carried to a list, the total of which should agree with the balance of the Tradesmen's Account in the General Ledger.

The Cash Book to the close of the period should be promptly posted, as well as the journalised purchases for the closing month. While the figures for the Journal entries are being prepared from the subsidiary books, a bookkeeper should be engaged entering them into the Journal and posting them to the

General Ledger. When the posting is completed the General Ledger should be balanced with the Journal. As stated elsewhere, it would also be balanced quarterly.

**Annual Report.—**

At this stage the figures will now be ready to be carried into a draft of the Revenue Account, Capital Account, and Balance Sheet (*vide* pages 5-10). A very convenient method is to have printed proofs, with last year's figures transferred to the margin, and everything properly set up, with the columns left blank in which the new figures are to be filled in. The General Ledger, having already balanced, there should not be much difficulty in balancing the figures carried into the prints.

**Closing Entries.—**

After everything has been audited as far as possible, and the proof accounts approved, the accounts in the General Ledger would be closed from Journal entries, as per the following examples:—



Examples of Journal entries to close

GENERAL LEDGER ACCOUNTS.

| | | £ s d | £ s d |
|---|---|---|---|
| Revenue Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For Expenditure for Year to....<br>as per Revenue Account, folios<br>.....in Annual Report.<br>Salaries Account (Power Expenses) ..<br>Wages Account " " ..<br>Fuel Account " " ..<br>Oil, Waste, and Supplies Account (Power Expenses) .. .. .. .. ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Revenue Account .. .. ..<br>For Receipts for Year to.....<br>as per Revenue Account, folios<br>.....in Annual Report.<br>Traffic Revenue Account .. .. ..<br>Advertising on Tickets Account .. ..<br>&c., &c. | | | |
| Capital Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For Capital Expenditure as at<br>....., *less* Total Depreciation written off, as per Capital Account, folios.....in Annual Report.<br>Permanent Way Account (Cap.) .. ..<br>Rail Bonding Account (C) .. .. ..<br>Ducts and Manholes Account (C).. ..<br>Cables Account (C) .. .. .. ..<br>&c., &c. | | | |
| Depreciation Account .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For Depreciation for Year to ....<br>.....as per Capital Account, folios.....in Annual Report.<br>.....Depôt, % on £ =£<br>.....Depôt, % on £ =£<br>.....Depôt, % on £ =£<br>Rail Bonding Account..... % on £ =£<br>Ducts and Manholes Account, % on £ =£<br>Cables Account, % on £ =£<br>&c., &c. | | | |
| Balance Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For the following Amounts as per Balance Sheet (Assets) folio....<br>in Annual Report.<br>Capital Account .. .. .. ..<br>Works Stock Account .. .. ..<br>General Stores Account .. .. ..<br>.....Depôt Store Account .. ..<br>.....Depôt Store Account .. ..<br>Sundry Debtors Account .. .. ..<br>Cash Account .. .. .. .. ..<br>Bank Account (General) .. .. ..<br>Do., do. (General Manager's) .. ..<br>&c., &c. | | | |

## GENERAL LEDGER ACCOUNTS—*continued.*

| | | £ s d | £ s d |
|---|---|---|---|
| Sundry Accounts .. .. .. *Dr.* | | | |
| To Balance Account .. .. .. | | | |
| For the following Amounts as per Balance Sheet (Liabilities) folio ..... in Annual Report. | | | |
| Loan .. .. .. .. .. .. | | | |
| Sinking Fund .. .. .. .. .. | | | |
| Permanent Way Renewal Fund .. .. | | | |
| General Reserve Fund .. .. .. | | | |
| Sundry Creditors Account .. .. .. | | | |
| &c., &c. | | | |

After the closing entries have been audited the Balance Sheet would be docquetted by the auditor.

The following examples are given to show the system on which the more difficult of the General Ledger Accounts would be wrought. These summarised accounts, if carefully examined in the light of the subsidiary records from which they would be posted, should be quite clear. Debits and credits to the various accounts are provided for all movements of material (new, second-hand, and scrap), so that the records will always be in agreement with the goods, wherever located, or in whatever form.



### GENERAL STORES ACCOUNT.

| *Dr.* | £ s d | *Cr.* | £ s d |
|---|---|---|---|
| Stock as at——— .. .. .. | | Amounts received for Scrap sold (all scrap would be sent to General Stores for disposal) .. .. .. | |
| From Invoice Allocation Book all purchases delivered direct to General Stores .. .. .. | | Stores issued as per Stores Issues Allocation Sheets (after deducting credits for Parts and Scrap returned from Works to General Stores .. .. .. .. | |
| From Depots Stores Accounts for all Parts and Scrap received at General Stores as per Transfers Account in Depots Expenditure Ledger .. .. .. .. | | Balance—Stock as at——— .. .. .. .. | |

### .....DEPOT STORE ACCOUNT.

| *Dr.* | £ s d | *Cr.* | £ s d |
|---|---|---|---|
| Stock as at——— .. .. .. | | Transfer to Cleaning and Oiling Cars, &c., Material issued for these purposes, as per separate Material Returns† .. | |
| From Invoice Allocation Book, all purchases delivered direct to Depot Store .. .. .. | | Transfer to Depots Expenditure Account, all Material issued and accounted for, less credits for Parts and Scrap returned to Depot Store as per Depots Expenditure Ledger | |
| From General Stores Issues Allocation Abstract* all goods sent to Depot Store from General Store .. .. .. | | General Stores Account and any other Store Accounts, all Parts and Scrap transferred to same as per Transfers Account in Depots Expenditure Ledger .. .. .. | |
| From other Depot Store Accounts, any stores transferred as per Transfers Account in Depots Expenditure Ledger .. | | Balance—Stock as at——— | |

* See page 44.

† See page 52.

### DEPOTS EXPENDITURE ACCOUNT.

| *Dr.* | £ s d | *Cr.* | £ s d |
|---|---|---|---|
| Transfer from each Depot Store Account all Material issued and accounted for, less credits for Parts and Scrap returned to Depot Store as per Depots Expenditure Ledger .. .. | | Balance—Net Expenditure at Depots to be transferred to Maintenance of Cars Account, and any other Accounts if other work is done .. .. .. .. .. | |
| All Wages of Maintenance Staff .. .. .. .. | | | |

## WORKS STOCK ACCOUNT.

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Stock as at——— .. .. .. .. .. .. .. | | Transfer to Works Expenditure Account amount of Material accounted for as used, less credits for Parts and Scrap returned from Works to General Store, as per Works Expenditure Ledger .. .. .. .. .. .. | |
| From Invoice Allocation Book, all goods purchased .. .. | | Balance—Stock as at——— .. .. .. .. .. | |
| Transfer from General Stores Account as per Issues Allocation Abstract goods *ex* General Stores to Works (less credits for Parts and Scrap returned from Works to General Stores) .. .. .. .. .. .. .. | | | |

## WORKS EXPENDITURE ACCOUNT.

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Transfer from Works Stock Account amount of Material accounted for as used (less credits for Parts and Scrap returned from Works to General Store, as per Works Expenditure Ledger) .. .. .. .. .. .. | | Credit Amounts received for Accounts for work done by Works .. .. .. .. .. .. .. .. | |
| All Wages (except Wages charged to Works Oncost Account) | | Balance will be the total of the Expense Accounts in the Works Expenditure Ledger, after deducting Credits and distributing Oncost over these Accounts *pro rata* to the Wages in each Account. This balance will be transferred as under:— | |
| Transfer total of Works Oncost Account to this Account .. | | (1) To Maintenance of Cars Account .. .. .. | |
| | | (2) To Sundry Accounts for miscellaneous work done by the Works for other Departments of the undertaking .. .. .. .. .. .. | |

## WORKS ONCOST ACCOUNT.

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Proportion of Salaries .. .. .. .. .. .. | | Transfer total of this Account to Works Expenditure Account (this being the full amount of Oncost to be distributed over the Accounts in the Works Expenditure Ledger) .. .. .. .. .. .. .. .. | |
| Coal, Gas, Water, Electrical Energy for Power and Lighting | | | |
| From Works Expenditure Account, all unallocated Wages, Supplies, Repairs to Tools, &c., as per Oncost Account in Works Expenditure Ledger .. .. .. .. .. | | | |



## MAINTENANCE OF CARS ACCOUNT.

(WORK DONE BOTH AT WORKS AND DEPOTS.)

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Transfer from Works Expenditure Account total of Net Amounts of Accounts in Works Expenditure Ledger after deducting Credits .. .. .. .. .. .. .. | | Credit all amounts received for claims for Repairs to Cars .. .. .. .. .. .. .. .. | |
| Transfer from Depôts Expenditure Account total of Net Amounts of Accounts in Depôts Expenditure Ledger after deducting Credits .. .. .. .. .. .. .. | | Balance—Net Cost of Maintenance .. .. .. .. | |
| Estimated amount for unexecuted repairs to Car parts in Works, General Stores and Depôt Stores, and included in Stock Sheets at price of new parts .. .. .. .. | | | |

## PERMANENT WAY YARD STOCK ACCOUNT.

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Stock of Material as at 1st June .. .. .. .. | | (*k*) Material despatched to our own jobs (*Dr.* Streets Account) .. .. .. .. .. .. .. | |
| " " Scrap do. .. .. .. .. .. .. | | (*l*) Material despatched to Permanent Way Contractors (*Dr.* Contractors' Accounts) .. .. .. .. | |
| All purchased Material delivered at Yard .. .. .. | | (*m*) Material sold (*Dr.* to Sundry Sales Account) .. .. | |
| (*j*) " Material sent to Yard by Permanent Way Contractors | | Balance—Stock.. .. .. .. .. .. .. .. | |
| (*i*) " Old Material returned from our own jobs on Streets | | | |
| (*g*) " New Material do. .. .. .. .. .. | | | |
| (*a*) " Material sent to Yard from General Stores .. .. | | | |
| (*d*) " " " " Car Works .. .. | | | |

## PERMANENT WAY STREETS STOCK ACCOUNT.

| *Dr.* | £ s d | | £ s d |
|---|---|---|---|
| Stock of Material as at 1st June 1901 .. .. .. | | (*o*) All Material used on our own jobs (*Dr.* to Permanent Way Expenditure Account).. .. .. .. | |
| All Material purchased and delivered on our own jobs .. | | (*n*) " Material sent from Streets to Buyers (*Dr.* to Sundry Sales Account) .. .. .. .. .. .. .. | |
| (*k*) " " received on our own jobs from Yard .. | | (*g*) " New Material returned from Streets to Yard (*Dr.* to Yard Account) .. .. .. .. .. .. | |
| (*b*) " Materials do. do. *ex* General Stores .. .. | | Balance—Stock .. .. .. .. .. .. .. | |
| (*e*) " " do. do. *ex* Car Works .. .. .. | | | |

*Dr.* PERMANENT WAY ONCOST ACCOUNT. *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| All Wages charged to Oncost Account in Permanent Way Expenditure Ledger .. .. .. .. .. | | (*p*) Transfer the total Amount of this Account to Permanent Way Expenditure Account by spreading over Section Accounts in Permanent Way Ledger .. .. .. | |
| (*c*) All Tools, &c., not charged through Consumpt Book *ex* General Stores—Entry from Stores Allocation Sheets Charges for Coup Dues, Cartage, Freight, &c., and Invoices for Tools and for Repairing Tools .. .. | | | |
| (*l*) Car Works Expenditure Making and Repairing Tools .. | | | |

*Dr.* PERMANENT WAY EXPENDITURE ACCOUNT. *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| (*o*) All Material used on our own jobs .. .. .. .. | | (*i*) All Scrap produced by operations on Street and sent to Yard (*Dr.* to Streets Account) .. .. .. | |
| " Wages except those charged to Oncost Account .. | | (*q*) " Wages (plus Oncost) for which Accounts have been rendered (*Dr.* to Sundry Sales Account) .. | |
| (*p*) Total of Oncost Account added *pro rata* to Section Accounts in Permanent Way Ledger .. .. .. | | | |

PERMANENT WAY SUNDRY SALES ACCOUNT.

*Dr.* (WAGES AND MATERIAL.) *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| (*m*) All Material sold out of Yard (from Yard Dispatch Book) | | Payments received for Accounts rendered (including both Wages and Material) .. .. .. .. .. .. | |
| (*n*) " Material sold out of Streets (from Consumpt Book) | | | |
| (*q*) " Wages (plus Oncost) for which Accounts have been rendered .. .. .. .. .. .. .. | | | |



*Dr.* PERMANENT WAY CONTRACTORS MATERIAL ACCOUNTS. *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| All Material sent direct to Contractor (Invoice Allocation Book) .. .. .. .. .. .. .. | | (*j*) Materials returned by Contractor to Yard .. .. Balancing is transferred to Permanent Way Renewals, Capital, Bonding, and Ducts, according to nature of Contract. | |
| (*b*) " Material sent to Contractor from Yard (entry from Dispatch Book checked with Contractor's Material Sheets) .. .. .. .. .. | | | |

*Dr.* IN WORKS EXPENDITURE ACCOUNT the entries affecting Permanent Way are:— *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| | | (*d*) All Material sent to Yard (*Dr.* Yard Account) .. .. | |
| | | (*e*) " " " Streets (*Dr.* Streets Account) .. | |
| | | (*f*) " " debited to Permanent Way Oncost Account | |

*Dr.* IN GENERAL STORES ACCOUNT the entries affecting Permanent Way are:— *Cr.*

| | £ s d | | £ s d |
|---|---|---|---|
| | | (*a*) All Material sent to Yard (*Dr.* Yard Account) .. .. | |
| | | (*b*) " " " Streets (*Dr.* Streets Account) .. | |
| | | (*c*) " " debited to Permanent Way Oncost Account | |

The General Ledger Accounts in which balances should be carried down to the next year would be re-opened by Journal entries as follows:—

| | | £ s d | £ s d |
|---|---|---|---|
| Sundry Accounts .. .. .. *Dr.*<br>To Capital Account.. .. .. ..<br>For the following Amounts as per Capital Account, folios.....in Annual Report.<br>Permanent Way Account (C) .. ..<br>Rail Bonding Account (C) .. .. ..<br>Ducts and Manholes Account (C) ..<br>Cables Account (C) .. .. .. ..<br>&c., &c. | | | |
| Sundry Accounts .. .. .. *Dr.*<br>To Balance Account .. .. ..<br>For the following Amounts as per Balance Sheet (Assets) folio.... in Annual Report.<br>Capital Account .. .. .. ..<br>Works Stock Account .. .. ..<br>.....Depôt Stores Account .. ..<br>.....Depôt Stores Account .. ..<br>Sundry Debtors Account .. .. ..<br>Bank Account .. .. .. .. ..<br>Cash Account .. .. .. .. ..<br>&c., &c. | | | |
| Balance Account .. .. .. *Dr.*<br>To Sundry Accounts .. .. ..<br>For the following Amounts as per Balance Sheet (Liabilities) folio ....in Annual Report.<br>Loan (with Name) .. .. .. ..<br>Sinking Fund .. .. .. .. ..<br>Permanent Way Renewal Fund .. ..<br>General Reserve Fund .. .. ..<br>Sundry Creditors Account .. .. ..<br>&c., &c. | | | |

## PROFESSIONAL AUDIT.

The professional audit of the books and accounts of a Tramways undertaking must necessarily be fairly exhaustive. The scope of the audit may be outlined generally as follows:—

*Cash Book.*—The auditor would vouch every entry in the Cash Book with the Vouchers, Counterfoil Receipt Book, Traffic Revenue Book, Bank Books, &c., and check all the summations of the Cash Book.

*Invoices.*—He would examine and initial, or stamp, every invoice that has been passed, and check its allocation as far as possible, especially for charges to Capital.

*Invoice Allocation Book.*—He would check all the amounts entered in the Allocation Book from the invoices, and also the summations.



*Journal.*—He would check every entry in the Journal with the subsidiary book or record from which it is derived. He would also check the summations.

*Tradesmen's Ledger.*—He would check some of the *Dr.* and *Cr.* postings. At the end of the year he would check the summations of the accounts, and compare the balances with the list of same, and see that the total of this list corresponds with the balance of the Tradesmen's Account in the General Ledger.

*General Ledger.*—He would check all postings and summations.

*Stock Sheets.*—He would carefully examine the Stock Sheets, compare some of the individual stocks with the Stock Accounts, and check some extensions and summations, and compare the totals with the stock amounts on the assets' side of the Balance Sheet.

*Annual Report.*—He would check each amount in the Revenue Account, Capital Account, and Balance Sheet with the accounts in the General Ledger, and would carefully consider the accounts in the light of the report, and all explanatory remarks and statements therein. He would satisfy himself that proper provision is made in the accounts for all renewals.

*Wages Sheets.*—At intervals he would check a complete week's Wages Sheets in every respect.

*Traffic Sheets.*—He would, at intervals, check a complete week's Traffic Sheets from the Way Bills to the Weekly Abstract of Receipts.

*Sundry Subsidiary Books, &c.*—In addition to the foregoing, it would be expedient that he should make an occasional excursion into the different sections of the subsidiary work—such as Depôts and Works Expenditure Books, Permanent Way Books, Stock Accounts, &c.

*General.*—He would examine the Acts of Parliament under which the Tramways were laid and are operated, particularly as to the clauses relating to finance.

All information and assistance should be afforded the auditor in his work. Nothing should be withheld. He should have access, as required, to any books, records, or documents, and his suggestions should be carefully considered. The efficacy of an audit depends largely upon its completeness.

## CHAPTER XII.

# SINKING FUND, DEPRECIATION, RENEWAL AND RESERVE FUNDS.

## I.—SINKING FUND.

ACTS of Parliament conferring powers on Corporations or other bodies to construct and equip Tramways, and to borrow money to a specified amount for this purpose, always provide for the repayment of such loans. This repayment is effected by means of a Sinking Fund, which consists of a percentage per annum on the amount borrowed, taken out of the annual revenue, this percentage being fixed according to the period in which the debt is to be wiped out. The Sinking Fund is generally accumulated at interest. Two per cent. Sinking Fund accumulated at 2½ per cent. interest will wipe out a debt in 33 years; if accumulated at 3 per cent., the debt will be redeemed in 31 years.

A simple illustration of the purpose of Sinking Fund may be given. A man borrows £1,000 to start a business, and desires to pay off the debt in, say, 20 years. By calculation he ascertains that a Sinking Fund of £3 14s. 5d. per cent., accumulated at 3 per cent. interest, will accomplish this. By this means, at the end of the twentieth year, the £1,000 borrowed will be



paid off, and the man's *own* £1,000, not *another's*, will be invested in his business.

In cases where power to borrow has been obtained under different Acts, and capital has been borrowed in different years, it is desirable to sub-divide Sinking Fund according to the year of borrowing. Thus, money borrowed, say, in 1895 will be wiped out in 1926 by a Sinking Fund of 2 per cent. accumulated at 3 per cent.; and money borrowed in 1900 will be wiped out in 1931 by the same percentages. Consequently, after 1926, no further Sinking Fund need be set aside on the amount borrowed in 1895. The following statement shows the application of Sinking Fund to amounts borrowed in different years:—

## STATEMENT Shewing Application of Sinking Fund in Reduction of Amount Borrowed each Year.

| | £527,098 Borrowed during Year to 31st May 1895 | | | | £9,046 Borrowed during Year to 31st May 1899 | | | |
|---|---|---|---|---|---|---|---|---|
| | Sinking Fund | Interest added | Total Sinking Fund and Interest thereon | Balance of Debt. | Sinking Fund | Interest added | Total Sinking Fund and Interest added | Balance of Debt |
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Sinking Fund @ 2% .. .. .. .. | 10,541 19 2 | .. | 10,541 19 2 | 516,556 0 10 | .. | .. | .. | .. |
| Totals, 31st May 1896 .. .. | 10,541 19 2 | .. | 10,541 19 2 | 516,556 0 10 | .. | .. | .. | .. |
| Sinking Fund @ 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | .. | .. | .. | .. |
| Interest: 2½% on Total Sinking Fund, and Interest thereon as at 31st May 1896 .. | .. | 263 11 0 | 10,805 10 2 | .. | .. | .. | .. | .. |
| Totals, 31st May 1897 .. .. .. | 21,083 18 4 | 263 11 0 | 21,347 9 4 | 505,750 10 8 | .. | .. | .. | .. |
| Sinking Fund at 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | .. | .. | .. | .. |
| Interest: 2½% on Total Sinking Fund, and Interest thereon as at 31st May 1897 .. | .. | 533 13 9 | 11,075 12 11 | .. | .. | .. | .. | .. |
| Totals, 31st May 1898 .. .. | 31,625 17 6 | 797 4 9 | 32,423 2 3 | 494,674 17 9 | .. | .. | .. | .. |
| Sinking Fund @ 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | .. | .. | .. | .. |
| Interest: 2½% on Total Sinking Fund, and Interest thereon as at 31st May 1898 .. | .. | 810 11 6 | 11,352 10 8 | .. | .. | .. | .. | .. |
| Totals, 31st May 1899 .. .. .. | 42,167 16 8 | 1,607 16 3 | 43,775 12 11 | 483,322 7 1 | .. | .. | .. | .. |
| Sinking Fund @ 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | 180 18 5 | .. | 180 18 5 | 8,865 1 7 |
| Interest: 2½% on Total Sinking Fund, and Interest thereon as at 31st May 1899 .. | .. | 1,094 7 10 | 11,636 7 0 | .. | .. | .. | .. | .. |
| Totals, 31st May 1900 .. .. .. | 52,709 15 10 | 2,702 4 1 | 55,411 19 11 | 471,686 0 1 | 180 18 5 | .. | 180 18 5 | 8,865 1 7 |
| Sinking Fund @ 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | 180 18 5 | .. | .. | .. |
| Interest: 3% on Total Sinking Fund, and Interest thereon as at 31st May 1900 .. | .. | 1,662 7 2 | 12,204 6 4 | .. | .. | .. | 186 7 0 | .. |
| Totals, 31st May 1901 .. .. | 63,251 15 0 | 4,364 11 3 | 67,616 6 3 | 459,481 13 9 | 361 16 10 | 5 8 7 | 367 5 3 | 8,678 14 7 |
| Sinking Fund at 2% .. .. .. .. | 10,541 19 2 | .. | .. | .. | 180 18 5 | .. | .. | .. |
| Interest: 3% on Total Sinking Fund, and Interest thereon as at 31st May 1901 .. | .. | 2,028 9 10 | 12,570 9 0 | .. | .. | 11 0 4 | 191 18 9 | .. |
| Totals, 31st May 1902 .. .. .. | 73,793 14 2 | 6,393 1 1 | 80,186 15 3 | 446,911 4 9 | 542 15 3 | 16 8 11 | 559 4 2 | 8,486 15 10 |
| Year in which Amount borrowed will be Repaid by application of Sinking Fund | 1927 | | | | 1930 | | | |

*Left-hand Side.*



| £354,000 Borrowed during Year to 31st May 1900 | | | | £846,000 Borrowed during Year to 31st May 1901 | | | | Totals | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sinking Fund | Interest added | Total Sinking Fund and Interest added | Balance of Debt | Sinking Fund | Interest added | Total Sinking Fund and Interest added | Balance of Debt | Sinking Fund | Interest added | Total Sinking Fund and Interest added | Balance of Debt |
| £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,541 19 2 | .. | 10,541 19 2 | 516,556 0 10 |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,541 19 2 | .. | 10,541 19 2 | 516,556 0 10 |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,541 19 2 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | 263 11 0 | 10,805 10 2 | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 21,083 18 4 | 263 11 0 | 21,347 9 4 | 505,750 10 8 |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,541 19 2 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | 533 13 9 | 11,075 12 11 | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 31,625 17 6 | 797 4 9 | 32,423 2 3 | 494,674 17 9 |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,541 19 2 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | 810 11 6 | 11,352 10 8 | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 42,167 16 8 | 1,607 16 3 | 43,775 12 11 | 483,322 7 1 |
| .. | .. | .. | .. | .. | .. | .. | .. | 10,722 17 7 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | 1,094 7 10 | 11,817 5 5 | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | 52,890 14 3 | 2,702 4 1 | 55,592 18 4 | 480,551 1 8 |
| 7,080 0 0 | .. | 7,080 0 0 | 346,920 0 0 | .. | .. | .. | .. | 17,802 17 7 | .. | .. | .. |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | 1,667 15 9 | 19,470 13 4 | .. |
| 7,080 0 0 | .. | 7,080 0 0 | 346,920 0 0 | .. | .. | .. | .. | 70,693 11 10 | 4,369 19 10 | 75,063 11 8 | 815,080 8 4 |
| 7,080 0 0 | .. | .. | .. | 16,920 0 0 | .. | 16,920 0 0 | 829,080 0 0 | 34,722 17 7 | .. | .. | .. |
| .. | .. | 7,292 8 0 | .. | .. | .. | .. | .. | .. | 2,251 18 2 | 36,974 15 9 | .. |
| .. | 212 8 0 | .. | .. | .. | .. | .. | .. | .. | | | |
| 14,160 0 0 | 212 8 0 | 14,372 8 0 | 339,627 12 0 | 16,920 0 0 | | 16,920 0 0 | 829,080 0 0 | 105,416 9 5 | 6,621 18 0 | 112,038 7 5 | 1,624,105 12 7 |
| 1931 | | | | 1932 | | | | | | | |

*Right-hand Side.*

The portion of such a statement as this, which relates to the current year, might always be embodied in the published financial report of the undertaking. It will be noticed that, during the last two years, interest is added at 3 per cent., instead of $2\frac{1}{2}$ per cent. as formerly. The object should be to accumulate the Sinking Fund at as nearly as possible the same rate of interest as that paid on the loans.

There is apt to be, and there is, so much misconception regarding the real purpose and limits of Sinking Fund that it is well to emphasise the fact that it is merely a method of repaying borrowed capital, in order that, ultimately, if there is no additional borrowing, the undertaking would be a free asset, unburdened by any charges for interest or redemption of debt.

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## II.—DEPRECIATION AND PERMANENT WAY RENEWAL FUND.

While Sinking Fund deals with money borrowed, Depreciation deals with the tangible items of capital on which the money has been expended. It is not sufficient merely to pay off loans; provision must be made to renew the various items of Capital as they become worn out. For this purpose there must be set aside from Revenue sufficient sums in name of Depreciation to meet renewals when they become due. The amount set aside as Depreciation may be separately invested, or it may have been expended for capital purposes to avoid borrowing. In the latter case, the amount may still be borrowed. In both cases—and this is the essential requirement—there are funds available to meet the required renewals. By charging against Revenue fixed annual percentages of the original cost of the various items of Capital an equalisation of renewal charges over the years is secured. Otherwise unduly heavy charges would fall on some years, and unduly light charges on others.



The "life" of the subject determines the rate of Depreciation. If it is known that a subject will be utterly valueless in, say, 20 years—without even a "scrap" value—then Depreciation at the rate of 5 per cent. per annum should be written off. If it is reasonably expected that a subject will have a residual or realisable value of 20 per cent. of its cost when it requires renewal in 20 years, then 4 per cent. per annum should be written off as Depreciation. When a renewal is carried out, the full cost would again appear in Capital Account, and the process of reduction by Depreciation would recommence.

It must be clearly understood that Depreciation should properly be provision for renewals only, corresponding to the shrinkage in value of the assets, and that ordinary repairs executed must, in addition, be charged year by year against Revenue.

It should also be noted that provision for capital becoming obsolete through improvements, or change of system, should not, strictly speaking, be included in Depreciation charges against Revenue. Such provision should, preferably, be made by a Reserve Fund, as explained under that heading.

The various items of Capital must be treated separately according to their special circumstances.

**Permanent Way.—**

As large sections of track often require renewal at one time, and as the life of different sections will vary according to the traffic, a Renewal Fund will be found more serviceable for dealing with this item than the ordinary method of writing down the capital cost by Depreciation. An average "life" must, of course, be estimated in fixing the amount per mile of track to be charged annually against Revenue for track renewals. The service to be got out of a line is, of course, dependent upon its

construction and gradients, and upon the number, weight, and speed of the cars and other vehicles passing over it. Local circumstances must always be taken into account. The life of an electric line will certainly be appreciably shorter than that of a horse line; and, in charging for renewals, it will be sounder finance to under-estimate than to over-estimate this life.

In a city with a close electric car service, and a good deal of other vehicular traffic, £450 per mile of single track is estimated as necessary to provide for renewals. This is on the basis of an average life of from 10 to 12 years.

The unexpended amounts charged to Revenue Account for future renewals would be credited to a specific account, Permanent Way Renewal Fund, which would appear as a liability in the Balance Sheet, and to which would be debited the cost of all renewals when executed.

**Permanent Way Electrical Equipment.—**

(*a*) *Rail Bonding.*—The copper bonds with which the rails are jointed will require to be taken out when the rails are renewed. It is considered advisable to renew the bonds along with the rails, consequently provision for renewal of bonding might suitably be made at the same rate as for the track, or, after allowing for scrap copper, say 7½ per cent.

(*b*) *Ducts and Manholes.*—The iron ducts, or pipes, through which the cables are drawn, are embedded in concrete, which forms a new channel for the cable. In the ordinary course the duct does not require to be renewed. Strictly speaking, therefore, Depreciation is unnecessary. The Reserve Fund should provide for wiping out the cost on a change being made to another system. If this is not done, however, Depreciation at, say, 2½ per cent. might be written off.



(*c*) *Feeder Cables.* — A very long life may safely be predicted for cables, although, of course, they have nowhere been long enough in use for even experts to state a definite period. On the basis of a 30 to 35 years' service a Depreciation of 3 per cent. would be ample. This life is estimated for cables conveying current for a fairly close service.

(*d*) *Poles and Rosettes.*—Excepting accidents, internal corrosion is the only element of wear in connection with poles. An average service of 30 years may be safely taken, requiring a Depreciation of 3 per cent.

(*e*) *Overhead Wires.*—Unlike many other items, the overhead trolley wires will be continually undergoing renewal, the cost of which would, year by year, be charged to Revenue. Curves at busy crossings may last only six months; on routes where a close service is run, two or three years' life is all that can be depended upon. The work of renewal might be so systematically arranged that by charging against Revenue the actual expenditure year by year an equalisation of charges over the years would be secured, and Depreciation would be unnecessary.

(*f*) *Section Boxes.*—As from 20 to 30 years' life may fairly be taken for section boxes, Depreciation at from 4 per cent. to 5 per cent. per annum would be ample provision.

**Ground.—**

As the value of ground will not, as a rule, depreciate, any provision under this heading will be unnecessary. Should it appreciate, however, no addition to the Capital Account would be made on this account.

**Buildings.—**

For Tramway buildings, which are principally of brick, and which deteriorate very slowly, a Depreciation of 2½ per cent. per annum should be sufficient.

**Machinery and Plant.—**

*Works.*—The Works machinery, consisting principally of iron-working and wood-working machines, which will be in constant use, is bound to deteriorate quicker than many other items of capital. On the basis of from 12 to 15 years' life Depreciation at 7½ per cent. per annum should be provided.

*Power Station and Sub-Stations.*—As spare generating plant requires to be provided, such plant will always be idle and will suffer little wear and tear. For the electrical plant at the Power Station and Sub-Stations a fairly long life may be safely anticipated. A rate of 5 per cent. per annum over all for Depreciation should be ample provision for all renewals.

**Rolling Stock.—**

To place the life of an electric car at anything beyond 12 or 15 years, if it runs at a fair speed, and the traffic is moderately heavy, would, most likely, be to form too sanguine an estimate. At that rate 7½ per cent. per annum should be written off as Depreciation. If, after some years' service, that allowance is found to be insufficient, the rate would naturally require to be increased, just as it might be reduced in the unlikely event of the life exceeding the estimate.*

**Sundry Equipments.—**

These, consisting principally of car accessories, will, like the overhead equipment, be undergoing regular renewal, the cost of which would be charged against Revenue, thus obviating the necessity for Depreciation.

**Furniture.—**

A nominal Depreciation of 2½ per cent. might be written off furniture until the realisable value is reached.

* This principle would, of course, also apply to the Depreciation of other items of Capital.



**Horses and Harness.**

These should be written down by Depreciation to their realisable value at the rate of, say, 7½ per cent. per annum, and fully maintained out of Revenue.

**Uniforms.—**

As an equipment of uniforms will probably last two years, a simple method would be to reduce the Capital Account by Depreciation to one-half of the original cost, and keep it permanently at that. Instead of charging to Revenue the full cost of the new equipment purchased every alternate year, only one-half would be charged, the other half being carried forward in suspense to be debited the following year, thus securing an equalisation of charges.

**General.—**

Depreciation at fixed percentages should undoubtedly be written off every year, according to a pre-arranged scheme such as the foregoing. The plea of insufficient surplus should never be allowed to excuse failure to make this *necessary* charge against Revenue. A deficit should rather be shown and carried forward to the following year. In no other way can the accounts exhibit, as they should, the true results and position of the undertaking.

Depreciation should always be deducted from the various items in the Capital Account, and should not appear as a fund on the liabilities' side of the Balance Sheet. To Revenue Account would be charged the full cost of the repairs, as well as the Depreciation required to provide for renewals.

Under the system sometimes advocated by which Depreciation to meet renewals is held to be partly provided for by Sinking Fund, money would require to be borrowed for renewals to the extent to which Sinking Fund had been held to provide for Depreciation, and the municipal ideal of an undertaking

free of debt, and consequently free of interest and Sinking Fund charges, would never be even approximately realised. It seems a reasonable view, considering the rapid advancement in all branches of science and invention, that the repayment of debt, and also provision for the replacement of those assets on which the amount borrowed has been expended, should go on simultaneously.

It is better, if any error is to be made, that it should be on the side of safety; and, in any case, it is clear that large systems of Electric Tramways can be operated at extremely low fares, and yet be able both to repay their debt and provide *fully* for renewals. (See also page 126.)

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## III.—RESERVE FUND.

No system of traction can be considered permanent. The most up-to-date mechanical and electrical arrangements may, sooner or later, be superseded. Competitive science, striving to combine the maximum of efficiency with the minimum of cost, may be relied upon to keep the scrap heap well supplied. Alterations, also, which, strictly speaking, add nothing to the value of the plant, could not be charged to Capital, and it would be misleading to include them in maintenance charges against Revenue.

For such contingencies as this a Reserve Fund might be accumulated. There can be little doubt that it is expedient for a Corporation department to carry to Reserve Fund the entire net surplus after paying all working expenses and fixed charges. The object of a municipal Tramway undertaking being to provide the best possible travelling facilities at the lowest possible fares, there should not, of course, be an unduly large surplus available, after paying fixed charges.



The Reserve Fund may, of course, like Depreciation, be either invested, or in the form of unborrowed capital, and should be always available.

The question as to the disposal of the surplus of profitable municipal undertakings is sometimes solved by appropriating it in relief of the rates. This is even attempted without debiting the undertaking with sufficient charges for Depreciation, &c. In the tendency to unduly magnify the undoubted financial and other advantages of municipal, as compared with private, operation, there lurks the danger of neglecting to make proper provision for the future. Even, however, after such provision has been made, the expediency of relieving the rates with any remaining surplus is questionable. By far the most logical and equitable arrangement is to give the benefit of any surplus to those from whom it is directly derived—the passengers. Reduced fares, a better service, extensions to outlying districts—in such ways the undertaking may be made an invaluable social factor, and yield only such a surplus as the future contingencies of the system demand. And these contingencies should rather be over-estimated than under-estimated. The fact that electric traction working expenses (excluding depreciation) average only about 6d. per car mile, as compared with about 9d. for horse traction, is apt to encourage an idea that the *net* free surplus from the former is much greater than it really is. It must be borne in mind that the capital with electric traction is considerably greater *pro ratâ* to the receipts than with the older system, and that consequently fixed charges are much heavier. The following shows, approximately, the results which should generally be looked for with electric traction in populous towns on the basis of fares fixed as closely as possible to working costs:—

| | Per Car Mile. D. | D. |
|---|---|---|
| Receipts .. .. .. .. .. .. .. | | 10·50 |
| Working Expenses :— | | |
| Power .. .. .. .. .. .. .. | ·35 | |
| Traffic .. .. .. .. .. .. | 3·15 | |
| General .. .. .. .. .. .. | 1·00 | |
| Repairs .. .. .. .. .. .. | 1·00 | |
| Depreciation, and Provision for Permanent Way Renewals .. .. .. .. .. .. | 2·20 | |
| | — | 7·70 |
| Gross Balance | .. | 2·80 |
| *Deduct*— | | |
| Interest and Sinking Fund .. .. .. .. .. | .. | 1·80 |
| Balance available for Reserve | .. | 1·00 |

It is obvious that to run so large a service as to bring the receipts per mile below the average required to pay all working expenses and fixed charges, and to provide for Depreciation and Reserve, would be unwarrantable. The demands for very close services, and for lines to outlying places, are apt to tend in this direction, if each route is not closely watched, and the service, as far as possible, suited to the traffic.

Attempted comparisons of the results of municipal with private undertakings are sometimes misleading. There should, however, be no dubiety as to the actual net surplus. Depreciation should be the same with both a limited company and a municipal undertaking. But a company having no interest or Sinking Fund to pay, these, added to the net surplus, should constitute the municipal equivalent to the company's profit distributable as dividend, or set aside as reserve.

A Reserve Fund accumulated for a specific purpose can only be used for that purpose. If a Reserve Fund is intended for general purposes, and to meet any contingency, it should be unspecified.

# APPENDIX.

## INSURANCES.

**Fire.—**

In fixing the amount, as representing the burnable value for which each subject owned by the undertaking should be insured, proportions as under may be taken of the various construction contracts:—

| Contract | One Storey | Two Storey |
|---|---|---|
| Brick Mason Work .. .. .. .. .. | 20% | 40% |
| Cast Iron and Steel Work .. .. .. .. | 20% | 40% |
| Joiner Work .. .. .. .. .. .. | 100% | 100% |
| Concrete and Asphalte .. .. .. .. | Nil. | Nil. |
| Plaster Work .. .. .. .. .. .. | 100% | 100% |
| Plumber Work .. .. .. .. .. .. | 100% | 100% |
| Gasfitting Work .. .. .. .. .. | 100% | 100% |
| Slater Work .. .. .. .. .. .. | 100% | 100% |
| Painter Work .. .. .. .. .. .. | 100% | 100% |

The following is a specimen of a Fire Insurance Specification over a large Tramway Depôt erected expressly for electric traction:—

| No. on Plan | Subjects | Rate pr. cent. | Amount Insured |
|---|---|---|---|
| 1 | On the building of One Storey occupied as Oil Store, Office, General Store, Recreation Room, Kitchen, Baths and Wash-house, Lavatories, Car Cleaners' Room, Car Repairers' Workshop, and Car Sheds | 3/- | £12,000 |
| | On Upfittings, Furniture, Lamps, Clocks, and all fixed and movable Utensils therein .. .. .. | 3/- | 500 |
| | On Stock-in-Trade therein .. .. .. .. | 3/- | 1,500 |
| | On Cars and other Vehicles, with their Fittings, Electrical Apparatus, and equipment in above Buildings .. .. .. .. .. .. .. | 3/- | 61,000 |
| | | | £75,000 |

It is, of course, expedient in the case of large risks, such as those of an extensive Tramways undertaking, to divide the insurances among a number of good companies. A separate policy would be obtained from each company for its proportion of the amount covered over each subject. As the number of cars at each Depôt will probably fluctuate, it will be found convenient to include in the specification rather less than the full number at each Depôt, and insure the number so deducted in a floating policy to cover the excess at any Depôt to that extent. For additional insurances required, Covering Notes would be obtained—a separate note from each company. For such additions, supplementary policies would be made out as soon as possible, the first premiums being calculated from the date of the Covering Notes to the renewal term. For short period policies higher rates would, of course, be required.

A Fire Insurance Register (Form No. 81) will be found very serviceable for keeping a complete record of all insurances and alterations of same. From this book all premiums charged would be checked. A number of pages would be reserved for each building or specification.

As a Tramways undertaking will probably conduct its insurances direct with the companies, agent's commission should be deducted from the premiums.

**Cash.—**

Cash is not an insurable commodity by the ordinary insurance companies, and, in Tramway Offices, there is necessarily a good deal of money outside fire-proof and burglar-proof safes. Cash may, however, be insured by Lloyd's under a "Burglary and Fire Policy," which covers all losses by fire, and losses by burglary above £5, in no case, however, covering any loss arising through robbery or misappropriation by employees.

Arrangements would be made as to the proof which would be accepted in the event of loss. Cashier's money might, for instance, be held as amounting to the balance of the Cash Book, and the traffic receipts as per the Traffic Records, &c. The rate would, of course, be dependent on the nature of the receptacles for the money, the construction of the buildings, &c.



**Employers' Liability.—**

The liability of the undertaking in respect of accidents to employees for which claims may be made under the Employers' Liability Act 1880, the Workmen's Compensation Act 1897, and at common law, may be indemnified at a moderate rate per cent. on the wages paid. Offers may be taken from suitable companies, preferably those having local offices which have power to settle claims. The usual method is to have the policy prepared at the beginning of the year on the basis of an estimated amount of wages for each class of employees, and the premium paid then, subject to adjustment at the end of the year when the exact amount of wages has been ascertained.

**Third Party.—**

The insurance of the undertaking against claims in respect of injuries to persons or damage to property of third parties arising from accidents caused by horses, rolling stock, equipments, buildings, plant, defects in the permanent way, or by Tramway operations on same, is perhaps the most important risk for which the undertaking may be indemnified. The car accidents will, of course, constitute the bulk of this risk, and perhaps the best basis for calculating the premium is that of mileage run. An additional premium would require to be fixed for the portion of the risk relating to the property other than cars. The policy would be made out at the beginning of the year for the estimated premium arrived at as above, which would be paid then, but would be subject to adjustment at the end of the year when the exact mileage run had been ascertained. Security may reasonably be required by the Tramways undertaking from the insurance company for the due fulfilment of the latter's obligations under the policy. On the amount so lodged the Tramways undertaking would pay interest. The policy, by arrangement, might be either with or without specified limits up to which claims would be paid in respect of any one accident or any one year.

**Fidelity.—**

The desirability will be apparent of having a Fidelity Guarantee Policy covering any loss that might arise through defalcations by officials having the custody of cash. For this risk, also, competitive offers could be taken on the basis of a Collective Policy. The officials embraced, to the extent of a guaranteed amount for each, might be the cashier, each pay clerk, and the chief of the Traffic Cash Room.

**Boiler.**—

Every boiler owned by the undertaking should be fully insured, after competitive offers have been taken, with an approved company at a rate which will include thorough and regular inspection.

**Valuation for Local Assessments.**—

Although the method of arriving at the valuation of a Tramways undertaking for local taxation purposes is different in Scotland from the systems prevailing elsewhere, the following brief summary of the method followed out by the Assessor of Railways and Canals (Scotland) may be interesting. He is regulated by the provisions of the following Acts:—

Valuation of Lands (Scotland) Act 1854, 17 & 18 Vict., Cap. 91.
Valuation of Lands (Scotland) Amendment Act 1867, 30 & 31 Vict., Cap. 80.
Valuation of Lands (Scotland) Amendment Act 1894, 57 & 58, Vict., Cap. 36.

From the published accounts of the undertaking for the preceding year he takes

The Gross Revenue,

and deducts all working expenses except

Owner's Local Rates and Taxes,
Property and Income Tax,
Accident Insurance,
Feu Duties and Tiends,
Upkeep of Buildings and Fixed Machinery.
Half Upkeep of Permanent Way.

This leaves a balance as Net Revenue, from which is deducted—

25 per cent on three-fourths of original cost of working plant and stock, of which

12 per cent. is for tenant's profits,
5 per cent. for Interest on Capital,
5 per cent. for Depreciation,
3 per cent for Law Charges, Accidents, Incidents, &c.

25 per cent.

10 per cent. on value of General Stores (excluding Permanent Way Materials),

5 per cent. on Floating Capital, estimated as necessary to carry on the business, for interest.



The balance represents the total valuation of the whole undertaking, and is allocated over the different properties and lines as follows:—

(1) 5 per cent. of the cost of each property (including ground) is taken as its valuation.

(2) The balance of the total valuation, after deducting the amount allocated to buildings as above, is applicable to lines, and is divided among the various rating areas according to the length of line in each area.

---

## FRIENDLY SOCIETY.

There can be no doubt as to the great advantages to be derived from a properly-constituted Friendly Society. In instituting such a society, the objects to be aimed at would probably be:—

(1) To provide, by means of a fixed weekly contribution from its members, for their alimentary relief during sickness or other infirmity, whether bodily or mental.

(2) At death of members or their wives to ensure, in the first case, to relatives or representatives, and, in the second, to members themselves, a fixed payment.

(3) To secure to members the benefits of infirmaries and kindred institutions by means of annual contributions from the funds of the Society.

The following notes are based on six years very successful working of such a society connected with the Glasgow Corporation Tramways:—

**Constitution.**—

*Conditions of Membership.*—Membership would be confined to employees of the Tramways undertaking under the following conditions:—

(1) The applicant must be under 45 years of age.

(2) He must fill up a form of application for membership (Form No. 82), and get it certified by the medical officer of the Society for the branch to which his Depôt belongs.

*Trustees.*—The trustees would be the Chairman of the Tramways Committee and the General Manager of the department, both for the time being, in whom all funds would be vested for behoof of the Society, and by whom the Secretary and Treasurer would be elected.

*Committee of Management.*—The management of the Society would be conducted by a Committee, consisting of representatives (one from each branch) elected annually by the members of the Society, and also of nominees of the Tramways Committee, the latter being (in proportion to the department's contribution) only one-half the number of the branch representatives.

The Committee would meet periodically to transact the business of the Society, and elect annually out of its own number a Chairman (and a Vice-Chairman), whose duty it would be, along with the Secretary, to attend all the meetings of the Committee.

*Branches.*—As a rule, there would be a branch of the Society at each Depôt of the department. Members not employed at any Depôt would be attached to the branch nearest their place of residence.

*Branch Committees.*—When electing their representative on the Committee of Management the members of each branch would also elect, out of their own number, a Committee consisting of one member for every forty or part of forty of their number. These Committees would undertake the visitation of sick members, and generally guard the interests of the Society.

**Contributions.**—

*Entrance Fee.*—An entrance fee, say, 1s. 6d., would be payable on joining, and might be deducted from the wages in three equal weekly instalments. On joining, every member would be provided with a copy of the Rules, and would be entitled to receive a copy of the last Annual Printed Report.

*Members divided into Classes.*—Every member would belong to one of the two following classes, viz.:—

Class I.—Employees receiving wages at and above 18s. per week of six days.

Class II.—Employees receiving wages under 18s. per week of six days.



*Members' Contributions.*—The rates of contribution would be—

Class I.—Members: 6d. per week.
Class II.—Members: 3d. per week.

*Contribution by Department.*—The Tramways Department would add a sum equal to one-half of the members' contributions.

*Medical Officers.*—These would be appointed by the Committee of Management. As a rule, there would be a medical officer to each branch. The fees would be calculated half-yearly at the rate of 5s. per annum on the average number of members at each branch.

**Benefits.**—

*1. Sick Aliment.*—On a member becoming disabled for work through sickness or accident, he would be required to notify the branch convener of same, who would immediately arrange for a member of the branch Committee, with one of the branch, to visit the sick member and report upon his case. Within six days from the commencement of his illness the sick member would send to the branch convener his application for sick aliment (Form No. 83), duly certified by the medical officer and by the visitors. This application form would then be forwarded to the Secretary and Treasurer, and the aliment paid at the rates as under:—

Class I.—15s. per week,
Class II.—7s. 6d. per week.

No member would be entitled to sick aliment until he has been six full weeks in the Society. No sick aliment would be payable for less than three days' illness, except in cases of accident, when, with the sanction of the Committee of Management, aliment might be granted for a shorter period. In a case of long continued sickness, the full aliment would be paid for the first 26 weeks, and two-thirds for the second 26 weeks. A member, after having received aliment for 52 weeks, and being still unfit for work, would cease to be a member of the Society, and would have no further claim on its funds. The Committee of Management might, however, grant a retiring allowance not exceeding £20, according to the merits of the case. If able to resume work after the 52 weeks, a member would not again be entitled to aliment for a period of six months. If a member, after receiving aliment for a period of less than one year, resumes work, and within

three months again claims aliment, the second period or periods would be reckoned with the first as part of the 52 weeks' aliment to which he is entitled.

Every sick member would be supplied with a "Declaration off Funds" Form (No. 84). On recovery he would fill up this form, get it certified by the medical officer, and send it to the convener of the Branch Committee, by whom it would be transmitted to the Secretary.

*II. Allowance on the Death of a Member.*—An allowance would be payable as under to the nearest representatives of a member who has died:—

Class I.—Members, £12.
Class II.—Members, £6.

The amount would only be payable on presentation, by the representative, of a certificate of death by the Society's medical officer, or, if the deceased has died out of the district, by a local medical practitioner duly qualified.

*III. Allowance on the Death of a Member's Wife.*—In such a case the member would receive £5 on presentation (1) of the Registrar's certificate of death, and (2) of the certificate of marriage.

*IV. Admission Lines to Infirmaries, &c.*—In return for the contributions of the Society to infirmaries, &c., members and their families would be entitled to the benefits of the institutions assisted.

*V. Medical Attendance and Medicines.*—Members would be attended, and supplied with medicine, by their respective medical officers without charge.

*Proportion of Contribution Refunded on Leaving Service.* — Provided there are sufficient funds for the purpose, members, on leaving the service, whether voluntarily or by dismissal, would be refunded one-third of their total contributions, less the amount of any benefits they may have received from the Society.

**General.**—

*Annual Report.*—An Annual Report for each year, with statements of Revenue and Expenditure and Balance Sheet, would be made up, and, after being audited and submitted to the general meeting of the Society, a printed copy of this report would be handed to each member.



*Auditor.*—An auditor, whose duty it would be to audit the books and accounts of the Society, would be appointed annually at the general meeting.

**Explanation of Forms and Books.**—

*Form of Application for Membership.*—The representative of each branch would be supplied with a book of "Application for Membership" Forms (No. 82).

The Application Form would be filled up by the applicant and certified by the medical officer. It would then be forwarded to the Secretary, and the applicant, if qualified for membership, would be duly admitted.

*Collection of Contributions.*—The weekly contributions would be entered in the Wages Sheets in a column for the purpose, against the members of the Society. The contributions would be retained on payment of the wages. For balancing purposes, the pay clerks would total the "Friendly Society Contributions" column in the Wages Sheets.

*Sick Aliment Application Form.*—Each representative would be provided with a book of "Application for Sick Benefit" Forms (No. 83).

Every sick member would be supplied with one of these forms as required. After filling up the form, and getting it certified by the medical officer and by the visitors, the sick member would return it to the representative, who would at once transmit it to the Secretary. Each form would be carefully checked, and care would be taken that wages and aliment are not paid for the same day. If the Application Form is found to be correctly and completely filled up, the amount is extended, a Receipt Form made out, and both certified by the Secretary for payment by the pay clerks.

**Form No. 84.—**

DECLARATION OFF FUNDS.

THE SECRETARY,

———————,

———————.

Sir,

I beg to intimate that I resumed work on 190 , and hereby declare off the funds of the Society. I beg to acknowledge having received from the funds of the Society, during my illness, the sum of £ : : .

Signature,
Residence,
Occupation, Branch,
No. on Roll, Date, 190

I hereby certify that the above-named is now able to resume work.

*Signature of Medical Officer*

---

**Form No. 85.—**

No. on Roll,

APPLICATION FOR DEATH ALLOWANCE.

THE SECRETARY,

———————,

———————.

SIR,

I beg to intimate the death of , my , which occurred on 190 . and I hereby claim the benefits of the Society, as per Class .

Signature,
Residence,
Occupation, Branch,
No. on Roll Date, 190 .

MEDICAL OFFICER'S CERTIFICATE.

I hereby certify that the above-named, died on 190 .

Signature,
Date, 190 .

VISITORS' CERTIFICATE.

We hereby certify that we last visited the above-named, on , and that owing to death we consider is entitled to the benefits of the Society.

Signed, {

---

PASSED FOR PAYMENT.

The sum of £ : : has this day been paid to the above-named, as per separate receipt.

Amount, £ : .
Date, 190 .
Secretary,

Pay Clerk.

Date, 190 .



*Register of Members' Contributions and Benefits.*—This book would be ruled as per Form No. 86.

The name of every member would be entered on the left-hand page under the branch to which he is attached. From the Wages Sheets all the paid contributions would be entered in the Register, opposite the proper names, and under the proper week. Contributions not collected would be marked unpaid (the arrears being always charged), and any members leaving the service would be marked "Away," in red, with date of leaving. Transfers from one branch to another, &c., would be duly given effect to in the Register.

On the right-hand page of the Register would be entered, from the Cash Book, all sums paid to members for sick benefit, death allowance, or for one-third of contributions refunded on their leaving the service. When a new Register is opened the amounts of contributions and payments for each member would be brought forward. The "Contributions" side of the Register would be balanced each week with the "Friendly Society Contributions" column in the Wages Sheets, and the "Payments" side with the *Cr.* side of the Cash Book, excluding payments not to, or on behalf of, members.

*Weekly Statement.*—A Weekly Statement (Form No. 87) of Receipts and Payments would be made up and certified by the Secretary.

*Cash Book, Ledger, and Vouchers.*—The *Dr.* side of the Cash Book would be written up from the Receipts side of the Weekly Statement (Form No. 87), and the *Cr.* side from the vouchers, which, with the Benefit Application Forms attached, would be numbered from the Cash Book. In entering the payments in the Cash Book, all those to each account and branch would be entered together in an inner column, and the extended totals posted. The Ledger would be ruled with separate columns on each page for the various branches, and the postings would be made accordingly.

*Abstract showing Weekly Membership at each Branch.*—This Abstract (Form No. 81) would be commenced every year with the exact membership at each branch. Week by week the necessary additions and deductions would be entered in separate columns, the additions consisting of new members and transfers *from* other branches, and the deductions of lapsed members and transfers *to* other branches. The net membership at each branch would then be extended into a "Total" column, and the statement balanced with

the number of members, according to the Register. The medical officers' fees would be calculated according to the average number of members for each branch, as brought out in this statement.

**Superannuation Fund.—**

A Friendly Society in connection with a Tramways undertaking will be incomplete without a Superannuation Fund in conjunction with it to provide a pension to every employee who becomes incapacitated after a certain period of service. Assuming that no pension would become payable until after 15 years membership, and that, say, 2d. per week per member would be set aside to the Superannuation Fund from the Friendly Society funds, superannuation allowances might be granted according to the following scale :—

| Period of Membership. | Weekly Superannuation Allowance. |
|---|---|
| 15 years | 10/- |
| 16 ,, | 11/- |
| 17 ,, | 12/- |
| 18 ,, | 13/- |
| 19 ,, | 14/- |
| 20 ,, | 15/- |
| 21 ,, | 16/- |
| 22 ,, | 17/- |
| 23 ,, | 18/- |
| 24 ,, | 19/- |
| 25 ,, | 20/- |

The funds would be accumulated and invested during the 15 years prior to aliment becoming due. No member would be entitled to a pension until he became partly or wholly unfit for work. In the former case, the superannuation allowance would be varied, within the maximum, according to the circumstances of the case. Aliment from the Society's funds would cease on receipt of a pension.

A scheme on such lines would make some provision for the inevitable time when every man will require, through physical unfitness, to leave the service. The existence of a Superannuation Fund will tend to make the service more attractive, to ensure a more permanent staff, and to relieve the General Manager of anxiety as to how employees, after faithful service, may be provided for when old age or earlier incapacity overtakes them.



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**Form No. 1.—**

JOURNEY WAY BILL.

Route.....
Conductor's Name,.....
Route No..... Car No..... Date,.....190..
Consecutive No. of Cash Bag handed into Office,.....

| | First Numbers | | Last Numbers | | Sold | |
|---|---|---|---|---|---|---|
| | Ticket No. | Package No. | Ticket No. | Package No. | | s d |
| ½d. | | | | | | |
| 1d. | | | | | | |
| 1½d. | | | | | | |
| 2d. | | | | | | |
| 3d. | | | | | | |
| | | | | | Total .. .. .. | |

Initials.....

**Form No. 2.—**

TOTAL WAY BILL.

Route.....
Route No..... Car No..... Driver,..... Date,.....1....

| Letter | Quantity Issued to Conductor | Number of Last Package | Number of First Package | First Numbers Returned to Office | Quantity Sold | Fares | Amount |
|---|---|---|---|---|---|---|---|
| | | | | | | | £ s d |
| | | | | | | ½d. | |
| | | | | | | 1d. | |
| | | | | | | 1½d. | |
| | | | | | | 2d. | |
| | | | | | | 3d. | |
| | | | | | | | |
| | | | | Total Sold, .. .. | | Cash paid in | |
| | | | | Punch Register, .. | | | |
| | | | | Over, .. .. .. | | | |
| | | | | Short, .. .. .. | | | |

I beg to acknowledge having received the Tickets entered on this Way Bill, together with Padlock and Key, Punch No.....
.....Conductor.



**Form No. 3.—** ABSTRACT OF JOURNEY WAYBILLS (FOR RECEIPTS).

*Route*,..... *Date*,.....19..

| No. of Collection | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | No. of Car.. | Route No... | Driver..... | Cond'ct'r.... | Relief Man | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d | s d |
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| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(This Form may be ruled and printed both sides.)

**Form No. 4.—**

NOTICE TO CONDUCTORS REGARDING SHORTS.

*Route*_____ _____ 190

*Conductor*, _____

_____ *Depôt.*

A comparison of your Punch Register, Tickets, and Cash Return shows deficit as under.

You will please sign and return to Head Office immediately, making any explanation you can offer.

GENERAL MANAGER.

| | £ | s | d |
|---|---|---|---|
| A Deficit in Money amounting to .. .. .. .. | | | |
| A Deficit of.....½d. Tickets, amounting to .. .. | | | |
| Do. .....1d. do. do. .. .. | | | |
| Do. .....1½d. do. do. .. .. | | | |
| Do. .....2d. do. do. .. .. | | | |
| Do. .....3d. do. do. .. .. | | | |
| Lock not returned, .. .. .. .. .. .. | | | |
| Key not returned, .. .. .. .. .. .. | | | |
| Damage to Tin Box, .. .. .. .. .. .. | | | |
| Damage to Punch, .. .. .. .. .. .. | | | |

EXPLANATION.

_____

_____

_____

_____

*Signature*, _____

**Form No. 5.—**

CONDUCTORS' SHORTS BOOK.

.....*Depôt*,

*Week ending*.....190..

| Conductor's Name | Sun. | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Gross Amount due | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | s d | s d | s d | s d | s d | s d | s d | £ s d | |
| | | | | | | | | | |



**Form No. 6.—**

TRAFFIC ABSTRACT.

Special Circumstances.....

Weather.....

" (Corresponding Day last Year)..... " " (Corresponding Day last Year).....

Date.....190..

| Route | | | | Passengers Carried | | | | | | | Car Hours (Gross) | Car Mileage (Gross) | Average No. of Cars (16 Hr. Day) | No. of Cars Out | Averages | | | | Last Year | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Streets | Miles | Furlongs | Yards | ½d. | 1d. | 1½d. | 2d. | 2½d. | 3d. | Total | | | | | Receipts | Per Car Mile | Per Car Hour | Pass'ng'rs per Car Mile | Receipts | Average per Mile Run | Average per Car Hour | Average Pass'ng'rs per Car M. |
| | | | | | | | | | | | | | | | £ s d | D | D | | £ s d | D | D | |
| | | | | | | | | | | | | | | | | | | | | | | |

**Form No. 7.—**

CAR MILEAGE IRREGULARITIES RETURN.

.....*Depôt.* *Date*.....

| Lost Mileage. | | | | | | Extra Mileage. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Route | Route No. of Car | Police No. of Car | No. of Journeys | By Whom Lost | Cause | Route | Route No. of Car | Police No. of Car | No. of Journeys | By Whom Done | Cause |
| | | | | | | | | | | | |

..... *Depôt Clerk.*

**Form No. 8.—**

PUNCHES REGISTER.

*Date in use*.....190.. .....*Depôt.*

| Punch No. | Conductor | | Date Punch Issued | Date Punch Returned | No. of Tickets Registered | No. of Tickets Issued per Way Bills | Remarks |
|---|---|---|---|---|---|---|---|
| | No. | Name | | | | | |
| | | | | | | | |



**Form No. 9.—** WAGES SHEET for Week ending Saturday,.....19 . .....Depôt.

| Pay Check No. | Name | Occupation | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Total | Rate per Day | Extra | Amounts Gross £ s d | Amounts Nett £ s d | Deductions F. Soci'ty | Deductions Sundries | Pay Checks Examined | Length of Service Years | Length of Service Weeks | Period off Work, excluding Five Days' Holidays (Weeks) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | J. D. Thomson | Motorman | .. | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 5/- | .. | 1 10 0 | 1 8 9 | 6d. | Whistle 9d. | ✓ | 6 | 4 | | |
| 2 | Jas. Gallacher | " | .. | 1 | 1 | 1 | Y9 | 1 | 1 | 6 | 4/10 | .. | 1 9 0 | 1 8 6 | 6d. | .. | ✓ | 5 | 9 | 2 | |
| 3 | Thos. Reilly.. | " | 1 | L | 1 | Y9 | 1 | 1 | 1 | 6 | 4/6 | .. | 1 7 0 | 1 6 6 | 6d. | .. | ✓ | 4 | 6 | | |
| 4 | Alex. McPherson .. | " | .. | 1 | $1\frac{3}{8}$ | 1 | 1 | 1 | 1 | $6\frac{3}{8}$ | 4/6 | .. | 1 9 8 | 1 9 8 | .. | .. | ✓ | 4 | 5 | $2\frac{1}{2}$ | |
| 5 | L. Ritchie .. | " | 1 | A | H | H | H | H | H | 6 | 4/4 | .. | 1 6 0 | 1 5 0 | 6d. | Rule Book 6d. | ✓ | 3 | 10 | 1 | |
| 6 | B. McGuiness | Conductor | A | Sp. | Sp. | 1 | A | Dismissed | | 1 | 4/10 | .. | .. | .. | .. | .. | .. | .. | .. | .. | Line Granted |
| 7 | Robert Steel.. | " | .. | $\frac{2}{4}$ Y$\frac{4\frac{1}{2}}{9}$ | $1\frac{2}{8}$ | 1 | 1 | 1 | 1 | $6\frac{2}{8}$ | 5/- | .. | 1 12 0 | 1 9 9 | 6d. | 1/9 | ✓ | 5 | 50 | 9 | |
| 8 | F. Byrne .. | " | .. | 1 | 1 | 1 | 1 | Resigned | | 4 | 4/8 | .. | .. | .. | .. | .. | .. | .. | .. | .. | Line Granted |
| 9 | Jas. A. Watt.. | " | 1 | $\frac{2}{4}$ | 1 | 1 | Y$\frac{4\frac{1}{2}}{9}$ | 1 | 1 | 6 | 4/- | .. | 1 4 0 | 1 3 6 | 6d. | .. | ✓ | .. | 24 | $\frac{1}{2}$ | |
| 10 | H. L. Menzies | " | L | S | S | S | S | S | S | | | | | | | | | | | | |
| 11 | Robert Sutherland .. | " | .. | L | L | L | L | L | L | | | | | | | | | | | | |
| | | Totals .. | 3 | $5\frac{1}{2}$ | 8 | 8 | $6\frac{1}{2}$ | 6 | 6 | | | | 9 17 8 | | 3/- | | | | | | |

*Add* Lying Times (Lines Granted)—B. McGuiness .. 0 4 10

" " " F. Byrne .. 0 18 8

£11 1 2

Time Certified.

.....

Depot Clerk.

| | Done by | Checked by |
|---|---|---|
| Extensions .. | | |
| Additions .. | | |

Examined by .....

**Form No. 10.—** ABSTRACT OF EMPLOYEES for Week ending.....190...

| Depôts | Car Mileage | Av. No. of Cars in use | Motormen and Conductors: Number of Days | | | | | | | | Av. No. of Men (6 day week) | Car Mileage per Man | Surplus Motormen and Conductors (L. Learners. D. Depôt Time): Number of Days | | | | | | | | Av. No. of Men (6 day week) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Su. | M. | Tu. | W. | Th. | F. | Sa. | Total | | | Su. | M. | Tu. | W. | Th. | F. | Sa. | Total | L. | D. |
| C'hill .. | 20671 | 32 | 66 | 122 | 122 | 122 | 122 | 122 | 125 | 801 | 133[8] | 313·18 | L<br>D 1 | 4 | 2 | 3 | 1 | 1 | 5 | 17 | | 2[5] |
| Dal'k .. | 33235 | 55 | 92 | 218 | 210 | 218 | 210 | 210 | 216 | 1374 | 229 | 291·53 | L 1<br>D 3 | 5 | 6<br>2 | 6<br>4 | 6<br>5 | 5<br>4 | 7<br>4 | 36<br>22 | 6 | 3[4] |
| Denntn. .. | 20790 | 35 | 66 | 122 | 124 | 120 | 124 | 128 | 131 | 815 | 135[5] | 310·29 | L<br>D | | | | 1 | 7 | 6 | 14 | | 2[2] |
| K. Park .. | 17682 | 32 | 62 | 110 | 110 | 108 | 108 | 108 | 126 | 732 | 122 | 289·87 | L<br>D 1 | 4<br>8 | 4<br>10 | 4<br>1 | 4<br>5 | 4<br>4 | 4<br>2 | 24<br>31 | 4 | 5[1] |
| Totals .. | 92378 | 154 | 286 | 572 | 566 | 568 | 564 | 568 | 598 | 3722 | 620[2] | 149·00 | L 1<br>D 5 | 9<br>12 | 10<br>14 | 10<br>8 | 10<br>12 | 9<br>16 | 11<br>17 | 60<br>84 | 10 | 14 |
| Totals (last w'k) | 91645 | 155 | 280 | 560 | 560 | 562 | 562 | 560 | 582 | 3666 | 611 | 149·99 | L<br>D 3 | 12<br>11 | 12<br>11 | 12<br>10 | 12<br>8 | 12<br>6 | 12<br>5 | 72<br>54 | 12 | 9 |
| " (corr. w'k last year) | 72350 | 132 | 260 | 530 | 530 | 530 | 530 | 530 | 540 | 3450 | 575 | 125·83 | L<br>D | 24<br>4 | 20<br>4 | 25<br>6 | 25<br>3 | 25<br>8 | 31<br>5 | 150<br>30 | 25 | 5 |



**Form No. 10** (*cont.*)— ABSTRACT OF EMPLOYEES for Week ending .....190...

| Men Employed Seven Days: Regular: Mot'rmen | Regular: Con-d'ct'rs | Spare: Mot'rmen | Spare: Con-d'ct'rs | Car Cleaners: No. of Days | Car Cleaners: Av. No. of Men (6 day week) | Car Cleaners: Av. No. of Cars per Man | Car Greasers: No. of Days | Car Greasers: Av. No. of Men (6 day week) | Car Greasers: Car Mileage per Man | Car Repairers (Day): No. of Days | Car Repairers (Day): Av. No. of Men (6 day week) | Car Repairers (Day): Car Mileage per Man | Car Repairers (Night): No. of Days | Car Repairers (Night): Av. No. of Men (6 day week) | Car Repairers (Night): Car Mileage per Man |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | 14[1] | 15·71 | 6 | 1 | 20671 | 66 | 11 | 1888 | | | |
| | | | | 162 | 27 | 14·37 | 18 | 3 | 11078 | 84 | 14 | 2374 | | | |
| | | | | 105 | 17[8] | 14·23 | 12 | 2 | 10395 | 45 | 7[3] | 2598 | | | |
| | | | | 122 | 20[2] | 11·05 | 12 | 2 | 8841 | 87 | 14[3] | 1263 | | | |
| | | | | 474 | 79 | 13·61 | 48 | 8 | 11547 | 282 | 47 | 1965 | | | |
| | | | | 462 | 77 | 14·09 | 48 | 8 | 11456 | 282 | 47 | 1950 | | | |
| | | | | 414 | 69 | 13·40 | 30 | 5 | 14470 | 228 | 38 | 1904 | | | |

| Summary | No. of Days | Av. No. of Men (6 day week) | Av. No. of Men (6 day week): Last Week | Av. No. of Men (6 day week): Last Year |
|---|---|---|---|---|
| Power— | | | | |
| Generating Station.. | .. | 130 | 130 | 120 |
| Sub-Stations.. .. | 276 | 46 | 46 | 44 |
| Traffic— | | | | |
| Depôt Clerks.. .. | 120 | 20 | 20 | 20 |
| *Motormen / *Conductors .. | 3722 | 620 | 611 | 575 |
| *Surplus M'men, Conductors & Learners | 144 | 24 | 21 | 30 |
| Traffic Regulators .. | 234 | 39 | 39 | 34 |
| Sandmen .. .. | 60 | 10 | 10 | 8 |
| Lorrymen .. .. | 24 | 4 | 4 | 4 |
| Trackmen .. .. | 78 | 13 | 13 | 11 |
| Trolley Boys.. .. | 180 | 30 | 30 | 25 |
| Point Boys .. .. | 204 | 34 | 34 | 30 |
| Miscellaneous .. | 150 | 25 | 20 | 18 |
| *Car Cleaners .. | 474 | 79 | 77 | 69 |
| *Car Greasers .. | 48 | 8 | 8 | 5 |
| Ticket Inspectors .. | 192 | 32 | 32 | 27 |
| General— | | | | |
| *Car Rep'r'rs at Depôts (Day and Night) .. | 282 | 47 | 47 | 38 |
| Overhead Eqt. Repairers, &c. .. | 270 | 45 | 45 | 40 |
| Permanent Way .. | .. | 450 | 440 | 470 |
| —— Works .. .. | .. | 400 | 400 | 420 |
| Buildings .. .. | .. | 30 | 40 | 50 |
| Ducts & Feeder Cables | 84 | 14 | 16 | 30 |
| Horsing .. .. | 120 | 20 | 20 | 25 |
| Miscellaneous .. | 120 | 20 | 23 | 20 |
| Head Office .. .. | .. | 60 | 60 | 40 |
| *As detailed opposite Depôts. Totals .. | .. | 2200 | 2186 | 2153 |
| Totals (last week) .. | .. | 2186 | | |
| Totals (corr. week last year) .. .. | .. | 2153 | | |

**Form No. 11.—** WAGES (RECOMMENDATION FOR ADVANCES).

.....*Depôt.* *Week ending*.....190..

The undernoted have given satisfactory Service, and are due for Advances on dates named.

*Signature*.....

| Pay Check No. | Name | Occupation | Length of Service | | Last Increase Granted (Week ending) | Present Rate per Day | Proposed Increased Rate per Day | Proposed Increase Due (Week ending) | Increase Given Effect to (Week ending) | Checked By |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Yrs. | Wks | | | | | | |
| | | | | | | | | | | |

Recommended..... Approved.....

*Chief of* ..... *Dept.* *General Manager*



**Form No. 12.—**

COUNTERFOIL.

_____Depot, or Department

Date_____190 ,

Name,_____No._____,

Occupation_____

_____days pay at_____per day

for week ending_____190 ,

leaving the Service for the following reason :—

_____

_____

_____

_____

_____

Signature_____

LYING TIME LINE.

_____Depot, or Department

_____190 ,

To the **Chief Pay Clerk.**

Sir,

Please pay_____No._____,

_____days pay at_____per day for week ending_____190 ,

He has been a_____since_____,

and is leaving the service for the following reason :—

_____

_____

_____

_____

_____

Signature_____

**Form No. 13.—**

HOLIDAYS BALLOT RETURN.

HOLIDAYS (with Pay).....Depot. Date.....190..

| Pay Check No. | Name | Occupation | Length of Service | | Period Balloted for (inclusive) | | Holidays Granted and Paid for | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Yrs. | Wks. | From | To | Week Ending | Days | Rate | Amount £ s d | |
| 1 | J. D. Thomson .. | Motorman | 6 | 4 | 7/7/02 | 11/7/02 | 12/7/02 | 5 | 5/- | 1 5 0 | |
| 4 | Alexander Thomson.. | " | 4 | 5 | 21/7/02 | 25/7/02 | 26/7/02 | 5 | 4/6 | 1 2 6 | Extension of Leave to 28th |
| 7 | Robert Steel .. .. | Conductor | 5 | 50 | 28/7/02 | 1/8/02 | 2/8/02 | 5 | 5/- | 1 5 0 | |
| 6 | B. McGuinness .. | " | .. | .. | 11/7/02 | 15/8/02 | 16/8/02 | 5 | 4/10 | 1 4 2 | Dismissed from Service |

**Form No. 14.—** *Piecework Contract No.....*

PIECEWORK CONTRACT AGREEMENT.

To.....GENERAL MANAGER. .....WORKS,

Sir, .....190..

We, the undersigned, hereby agree to _____

_____

_____

The work will be done in a tradesmanlike manner, and to your entire satisfaction, for the sum of £ per Car _____

_____

| CERTIFIED. |
|---|
| ..... ... |
| WORKS FOREMAN. |

Yours truly,

(*Signed*) _____

" _____



**Form No. 15.—** PIECEWORK CONTRACT BALANCE STATEMENT. No. .

.....Works,

Contract No..... Commenced..../..../190.. Completed..../..../190 . Week ending.....190..

Arranged with .....

.....

WAGES PAID AS PER WAGES SHEETS.

| Week Ending | Emp. No. | Name | Hrs. | Rate | Amount | Emp. No. | Name | Hrs. | Rate | Amount | Total Wages Paid | Contract Amount and Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | £ s d | | | | | £ s d | £ s d | £ s d |
| | | | | | | | Balance .. | .. | .. | .. | .. | £ |

| CERTIFIED— | CERTIFIED— | CHECKED— |
|---|---|---|
| ..... | ..... | ..... |
| Works Foreman. | Chief Engineer. | Pay Clerk. |

**Form No. 16.—** PIECEWORK CONTRACTS ABSTRACT BOOK.

Contract—Car Bodies.
(Sliding Doors.)

Price £ : : per Car.

| Contract No. | Dates | | No. of Cars | No. of Articles | Names of Employees | Designation | Total Hours | Hours per Car | Hours per Article | Rate | Net Wages | Add 8ths | Total | | Total Earnings per Car, plus 8ths, at undernoted Rates p. Hour | | Contract Rate per Hour | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Commenced | Completed | | | | | | | | | | | Amount | Per Car | Rates | Amount | | |
| | | | | | | | | | | D | £ s d | £ s d | £ s d | £ s d | D | £ s d | D | |
| 129 | 12/12/01 | 31/12/01 | 2 | .. | Walker & Thomson | Car Builders | 262½ | 131¼ | .. | 8½ | 9 5 11 | 3 9 9 | 12 15 8 | 6 7 10 | 8½ | 6 7 10 | 11·89 | |
| 356 | 25/9/01 | 14/1/02 | 25 | .. | Peacock & Blair | Do. | 237 | 9 12/25 | .. | " | 8 7 11 | 3 2 11 | 11 10 10 | 0 9 3 | " | 0 9 3 | 12·65 | |



**Form No. 17.—** UNPAID WAGES BOOK.

| Week ending | Entry No. | Pay Check No. | Name | Occupation | Depôt | Amount | Total handed to Cashier | Cashier's Initials | Paid | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Date | Initials |
| | | | | | | £ s d | £ s d | | | |

**Form No. 18.—** WAGES.

Pay Clerk.—No. 1. STATEMENT OF RECEIPTS AND PAYMENTS for Week ending.....190..

Name..... CASH PAID.

| Depôts, &c. | Wages: Depôts, &c. | Wages: Traffic | Wages: Total | Wages: Less Unpaid Wages | Wages: Net Amount Paid | Friendly Society Aliment | | Totals |
|---|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Head Office .. .. | 100 0 0 | .. | 100 0 0 | .. | 100 0 0 | .. | .. | 100 0 0 |
| Traffic Regulators &c. .. | 94 6 0 | .. | 94 6 0 | 1 10 0 | 92 16 0 | 0 15 0 | .. | 93 11 0 |
| Lying Times .. .. | 20 5 6 | 5 3 6 | 25 9 0 | .. | 25 9 0 | .. | .. | 25 9 0 |
| Totals .. | £214 11 6 | £5 3 6 | £219 15 0 | £1 10 0 | £218 5 0 | £0 15 0 | | |
| Balance— | | | | | | | | |
| Refunded Cashier | .. | .. | .. | .. | .. | .. | .. | 37 14 9 |
| Amount Short | .. | .. | .. | .. | .. | .. | .. | .. |
| | | | | | | Total .. | .. | £256 14 9 |

Received the above Balance, £37 14s. 9d.

.....190.....Cashier.

CASH RECEIVED.

Received from Cashier .. .. .. .. .. .. .. .. .. .. .. £250 0 0

Collected as under :—

| Depôts, &c. | Friendly Society Contributions: Depôts, &c. | Friendly Society Contributions: Traffic | Friendly Society Contributions: Total | Claims | Shorts | | |
|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |
| Head Office .. .. .. .. .. | 3 5 0 | .. | 3 5 0 | .. | .. | .. | 3 5 0 |
| Traffic Regulators, &c. .. .. .. | 2 10 0 | .. | 2 10 0 | .. | .. | .. | 2 10 0 |
| Lying Times .. .. .. .. .. | .. | .. | .. | 0 9 6 | 10 3 | .. | 0 19 9 |
| Totals .. | £5 15 0 | .. | £5 15 0 | £0 9 6 | £0 10 3 | | |

Amount Over .. .. .. .. .. .. .. .. .. .. ..

**Form No. 18**—(*continued*).— WAGES.

Pay Clerk.—No. 3. STATEMENT OF RECEIPTS AND PAYMENTS for Week ending.....190..

Name..... CASH PAID.

| Depôts, &c. | Wages: Depôts, &c. | Wages: Traffic | Wages: Total | Wages: Less Unpaid Wages | Wages: Net Amount Paid | Friendly Society Aliment | | Totals |
|---|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Langside .. .. .. | 100 0 0 | 140 0 0 | 240 0 0 | 2 10 0 | 237 10 0 | 2 0 0 | .. | 239 10 0 |
| Maryhill .. .. .. | 20 9 1 | 62 11 11 | 83 1 0 | .. | 83 1 0 | .. | .. | 83 1 0 |
| Partick .. .. .. | 35 3 0 | 90 11 6 | 125 14 6 | 3 5 4 | 122 9 2 | 0 15 0 | .. | 123 4 2 |
| Totals .. | £155 12 1 | £293 3 5 | £448 15 6 | £5 15 4 | £443 0 2 | £2 15 0 | | |
| Balance— | | | | | | | | |
| Refunded Cashier | .. | .. | .. | .. | .. | .. | 9 10 7 | |
| Amount Short .. | .. | .. | .. | .. | .. | .. | .. | 9 10 7 |
| | | | | | | Total .. | .. | £455 5 9 |

Received the above Balance, £9 10s. 7d.

.....190.....Cashier.

CASH RECEIVED.

Received from Cashier .. .. .. .. .. .. .. .. .. .. .. £440 0 0

Collected as under :—

| Depôts, &c. | Friendly Society Contributions: Depôts, &c. | Friendly Society Contributions: Traffic | Friendly Society Contributions: Total | Claims | Shorts | | |
|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |
| Langside .. .. .. .. .. | 2 0 0 | 4 10 0 | 6 10 0 | 0 10 0 | 0 19 0 | .. | 7 19 0 |
| Maryhill .. .. .. .. .. | 0 19 6 | 2 3 6 | 3 3 0 | 0 2 6 | 0 5 3 | .. | 3 10 9 |
| Partick .. .. .. .. .. | 1 4 9 | 1 19 6 | 3 4 3 | .. | 0 11 9 | .. | 3 16 0 |
| Totals .. | £4 4 3 | £8 13 0 | £12 17 3 | £0 12 6 | £1 16 0 | | |
| Amount Over .. .. . .. .. .. .. .. .. .. .. .. | | | | | | | |
| | | | | | | Total .. | £455 5 9 |

.....Accountant.



**Form No. 18**—(*continued*).— WAGES.

Pay Clerk.—No. 4. STATEMENT OF RECEIPTS AND PAYMENTS for Week ending.....190..

Name..... CASH PAID.

| Depôts, &c. | Wages: Depôts, &c | Wages: Traffic | Wages: Total | Wages: Less Unpaid Wages | Wages: Net Amount Paid | Friendly Society Aliment | | Totals |
|---|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Pollokshaws .. .. | 40 6 0 | 85 3 4 | 125 9 4 | 1 9 2 | 124 0 2 | .. | .. | 124 0 2 |
| Possilpark .. .. .. | 45 3 0 | 90 6 2 | 135 9 2 | 0 10 6 | 134 18 8 | .. | .. | 134 18 8 |
| Springburn .. .. | 29 5 0 | 80 3 8 | 109 8 8 | .. | 109 8 8 | 0 19 6 | .. | 110 8 2 |
| Totals .. | £114 14 0 | £255 13 2 | £370 7 2 | £1 19 8 | £368 7 6 | £0 19 6 | | |
| Balance— | | | | | | | | |
| Refunded Cashier | .. | .. | .. | .. | .. | .. | 40 9 0 | |
| Amount Short .. | .. | .. | .. | .. | .. | .. | .. | 40 9 0 |
| | | | | | | Total .. | .. | £409 16 0 |

Received the above Balance, £40 9s. 0d.

.....190.....Cashier.

CASH RECEIVED.

Received from Cashier .. .. .. .. .. .. .. .. .. .. .. £400 0 0

Collected as under :—

| Depôts, &c. | Friendly Society Contributions: Depôts, &c. | Friendly Society Contributions: Traffic | Friendly Society Contributions: Total | Claims | Shorts | | |
|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |
| Pollokshaws .. .. .. .. .. | 1 0 0 | 1 10 0 | 2 10 0 | .. | 1 3 0 | .. | 3 13 0 |
| Possilpark .. .. .. .. .. | 1 9 6 | 2 0 0 | 3 9 6 | .. | 0 9 3 | .. | 3 18 9 |
| Springburn .. .. .. .. .. | 0 10 6 | 1 5 0 | 1 15 6 | .. | 0 8 9 | .. | 2 4 3 |
| Totals .. | £3 0 0 | £4 15 0 | £7 15 0 | .. | £2 1 0 | | |
| Amount Over .. .. .. .. .. .. .. .. .. .. .. .. | | | | | | | |
| | | | | | | Total .. | £409 16 0 |

.....Accountant.

**Form No. 18**—(*continued*).— WAGES.

Pay Clerk.—No. 5. STATEMENT OF RECEIPTS AND PAYMENTS for Week ending.....190..

Name..... CASH PAID.

| Depôts, &c. | Wages: Depôts, &c. | Wages: Traffic | Wages: Total | Wages: Less Unpaid Wages | Wages: Net Amount Paid | Friendly Society Aliment | | Totals |
|---|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Whitevale .. .. .. | 20 3 9 | 59 3 3 | 79 7 0 | .. | 79 7 0 | 0 5 0 | .. | 79 12 0 |
| Works .. .. .. | 300 0 0 | .. | 300 0 0 | 3 0 6 | 296 19 6 | 3 9 6 | .. | 300 9 0 |
| Permanent Way .. .. | 220 6 5 | .. | 220 6 5 | 1 6 5 | 219 0 0 | 2 10 3 | .. | 221 10 3 |
| Power Station .. .. | 100 9 7 | .. | 100 9 7 | 0 19 1 | 99 10 6 | 1 9 3 | .. | 100 19 9 |
| Totals .. | £640 19 9 | £59 3 3 | £700 3 0 | £5 6 0 | £694 17 0 | £7 14 0 | | |
| Balance— | | | | | | | | |
| Refunded Cashier | .. | .. | .. | .. | .. | .. | 17 16 6 | |
| Amount Short .. | .. | .. | .. | .. | .. | .. | .. | 17 16 6 |
| | | | | | | Total .. | .. | £720 7 6 |

Received the above Balance, £17 16s. 6d.

.....190.....Cashier.

CASH RECEIVED.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Received from Cashier .. .. .. .. .. .. .. .. .. .. .. | | | | | | | £710 0 0 |
| Collected as under :— | | | | | | | |
| Depôts, &c. | Friendly Society Contributions: Depôts, &c. | Friendly Society Contributions: Traffic | Friendly Society Contributions: Total | Claims | Shorts | | |
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |
| Whitevale .. .. .. .. .. | 0 11 6 | 1 5 0 | 1 16 6 | 0 1 0 | 0 9 6 | .. | 2 7 0 |
| Works .. .. .. .. .. .. | 4 0 0 | .. | 4 0 0 | .. | .. | .. | 4 0 0 |
| Permanent Way .. .. .. .. | 2 11 3 | .. | 2 11 3 | .. | .. | .. | 2 11 3 |
| Power Station .. .. .. .. | 1 9 3 | .. | 1 9 3 | .. | .. | .. | 1 9 3 |
| Totals .. | £8 12 0 | £1 5 0 | £9 17 0 | £0 1 0 | £0 9 6 | | |
| Amount Over .. .. .. .. .. .. .. .. .. .. .. .. | | | | | | | |
| | | | | | | Total .. | £720 7 6 |

.....Accountant.



**Form No. 19.**— WAGES.

ABSTRACT OF RECEIPTS AND PAYMENTS for Week ending.....190

CASH PAID.

| | Pay Clerk No. 1 | Pay Clerk No. 2. | Pay Clerk No. 3. | Pay Clerk No. 4. | Pay Clerk No. 5. | | Total |
|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Total as per Wages Sheets .. .. .. | 219 15 0 | 923 11 0 | 448 15 6 | 370 7 2 | 700 3 0 | .. | 2,662 11 8 |
| *Less*—Per Unpaid Wages Book .. .. | 1 10 0 | 7 18 0 | 5 15 4 | 1 19 8 | 5 6 0 | .. | 22 9 0 |
| Net Amounts Paid .. .. .. .. | 218 5 0 | 915 13 0 | 443 0 2 | 368 7 6 | 694 17 0 | .. | 2,640 2 8 |
| F.S. Aliment as per Statement .. .. | 0 15 0 | 7 5 5 | 2 15 0 | 0 19 6 | 7 14 0 | .. | 19 8 11 |
| Balance - Refunded Cashier .. .. | 37 14 9 | 48 3 7 | 9 10 7 | 40 9 0 | 17 16 6 | .. | 153 14 5 |
| Amount Short .. .. .. | | | | | | | |
| Totals .. | £256 14 9 | £971 2 0 | £455 5 9 | £409 16 0 | £720 7 6 | | £2,813 6 0 |

CASH RECEIVED.

| | Pay Clerk No. 1. | Pay Clerk No. 2. | Pay Clerk No. 3. | Pay Clerk No. 4. | Pay Clerk No. 5. | | Total |
|---|---|---|---|---|---|---|---|
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| Received from Cashier .. .. .. | 250 0 0 | 950 0 0 | 440 0 0 | 400 0 0 | 710 0 0 | .. | 2,750 0 0 |
| F.S. Contributions as per Statement .. | 5 15 0 | 18 10 0 | 12 17 3 | 7 15 0 | 9 17 0 | .. | 54 14 3 |
| Claims .. .. .. .. .. .. .. | 0 9 6 | 1 7 9 | 0 12 6 | .. | 0 1 0 | .. | 2 10 9 |
| Shorts .. .. .. .. .. .. .. | 0 10 3 | 1 4 3 | 1 16 0 | 2 1 0 | 0 9 6 | .. | 6 1 0 |
| | 256 14 9 | 971 2 0 | 455 5 9 | 409 16 0 | 720 7 6 | .. | 2,813 6 0 |
| Amount Over .. .. .. | | | | | | | |
| Totals .. | £256 14 9 | £971 2 0 | £455 5 9 | £409 16 0 | £720 7 6 | | £2,813 6 0 |

| CASHIER. | CHIEF PAY CLERK. | ACCOUNTANT. |
|---|---|---|
| | | |

**Form No. 20.—** ANALYTICAL STATEMENT OF

| | ..... Power Station | | ..... Depôt | | ..... Depôt | | ..... Depôt | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile |
| | £ s d | D | £ s d | D | £ s d | D | £ s d | D |
| POWER:— | | | | | | | | |
| Generating Station— | | | | | | | | |
| Superintendent .. .. .. | 2 8 0 | | .. | | .. | | .. | |
| Engineers .. .. .. .. | 23 19 0 | | .. | | .. | | .. | |
| Greasers .. .. .. .. | 40 9 0 | | .. | | .. | | .. | |
| Feed Pump Attendants .. .. | 3 15 0 | | .. | | .. | | .. | |
| Stokers .. .. .. .. | 13 10 0 | | .. | | .. | | .. | |
| Coal and Ash Attendants .. | 12 4 4 | | .. | | .. | | .. | |
| Electrical Engineers .. .. | 9 0 0 | | .. | | .. | | .. | |
| Switchboard Attendants .. | 8 12 0 | | .. | | .. | | .. | |
| Locomotive Cranemen .. .. | 1 8 8 | | .. | | .. | | .. | |
| Electric Cranemen .. .. | | | | | | | | |
| Cleaners .. .. .. .. | 14 18 0 | | .. | | .. | | .. | |
| Labourers .. .. .. .. | 2 0 0 | | .. | | .. | | .. | |
| Clerks, Storemen, and Boys .. | 5 6 0 | | .. | | .. | | .. | |
| Miscellaneous .. .. .. | | | | | | | | |
| Totals .. | 137 10 0 | | .. | | .. | | .. | |
| Sub-Stations— | | | | | | | | |
| Switchboard Attendants .. | .. | | 6 0 0 | | 6 5 0 | | .. | |
| Assistant Do. .. .. | .. | | 2 3 0 | | 2 5 6 | | .. | |
| Cleaners .. .. .. .. | .. | | 1 3 0 | | 1 2 0 | | .. | |
| Totals .. | £137 10 0 | | £9 6 0 | ·10 | £9 12 6 | | .. | |
| Totals (last week) .. .. | 141 13 0 | | 9 3 6 | ·10 | 9 10 5 | | .. | |
| Totals (corr. week last year) .. | 130 0 0 | | 9 0 2 | ·11 | 8 15 0 | | .. | |
| TRAFFIC:— | | | | | | | | |
| Depôt Clerks .. .. .. | .. | | 3 7 6 | | 1 8 0 | | 3 14 6 | |
| Motormen .. .. .. .. | .. | | 93 5 9 | | .. | | 155 0 2 | |
| Conductors .. .. .. .. | .. | | 88 15 4 | | .. | | 147 14 9 | |
| Yard Time— | | | | | | | | |
| Motormen .. .. .. | .. | | 0 15 3 | | .. | | 1 14 0 | |
| Conductors .. .. .. | .. | | 3 1 3 | | .. | | 1 8 0 | |
| Learners— | | | | | | | | |
| Motormen .. .. .. | | | | | | | | |
| Conductors .. .. .. | .. | | .. | | .. | | 7 11 0 | |
| Car Cleaners .. .. .. | .. | | 16 0 8 | | .. | | 50 1 8 | |
| Car Greasers .. .. .. | .. | | 2 7 3 | | .. | | 3 14 3 | |
| Totals .. | .. | | 207 13 0 | 2·44 | 1 8 0 | | 351 8 4 | 2·54 |
| Traffic Regulators .. .. | .. | | .. | | .. | | .. | |
| Sandmen .. .. .. .. | .. | | 1 2 0 | | .. | | 1 5 0 | |
| Trackmen .. .. .. .. | .. | | 1 2 0 | | 2 4 0 | | 1 2 0 | |
| Lorrymen .. .. .. .. | .. | | 1 6 0 | | 1 6 0 | | .. | |
| Trolley Boys .. .. .. | .. | | 2 11 0 | | .. | | .. | |
| Point Boys .. .. .. .. | .. | | 1 10 4 | | .. | | 2 9 0 | |
| Ticket Inspectors .. .. .. | .. | | .. | | .. | | .. | |
| Miscellaneous .. .. .. | .. | | 6 14 2 | | .. | | 10 14 10 | |
| Totals .. | .. | | £221 18 6 | 2·62 | £4 18 0 | | £366 19 2 | 2·65 |
| Totals (last week) .. .. .. | .. | | 226 11 5 | 2·66 | 6 4 0 | | 365 14 3 | 2·64 |
| Totals (corr. week last year) .. | .. | | 210 17 0 | 2·59 | 8 0 2 | | 340 9 3 | 2·54 |



WAGES for Week ending ..... 190..

| ..... Depôt | | Head Office | General | Totals | | Totals (last week) | | Totals (corr. week last year) | | Last Financial Year |
|---|---|---|---|---|---|---|---|---|---|---|
| Amount | Av. per Mile | | | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile | Av. per Mile |
| £ s d | D | £ s d | £ s d | £ s d | D | £ s d | D | £ s d | D | |
| .. | | .. | .. | 2 8 0 | | 2 8 0 | | 2 8 0 | | |
| .. | | .. | .. | 23 19 0 | | 27 15 0 | | 21 0 0 | | |
| .. | | .. | .. | 40 9 0 | | 45 0 0 | | 38 5 0 | | |
| .. | | .. | .. | 3 15 0 | | 3 15 0 | | 2 19 6 | | |
| .. | | .. | .. | 13 10 0 | | 13 10 0 | | 12 0 0 | | |
| .. | | .. | .. | 12 4 4 | | 10 11 10 | | 11 5 0 | | |
| .. | | .. | .. | 9 0 0 | | 9 0 0 | | 8 5 0 | | |
| .. | | .. | .. | 8 12 0 | | 7 0 0 | | 7 10 0 | | |
| .. | | .. | .. | 1 8 8 | | 1 8 8 | | 1 5 0 | | |
| .. | | .. | .. | 14 18 0 | | 14 7 3 | | 15 15 0 | | |
| .. | | .. | .. | 2 0 0 | | 1 3 3 | | 4 0 0 | | |
| .. | | .. | .. | 5 6 0 | | 5 14 0 | | 5 7 6 | | |
| .. | | .. | .. | 137 10 0 | | 141 13 0 | | 130 0 0 | | |
| .. | | 9 5 0 | 3 5 0 | 24 15 0 | | 25 0 0 | | 21 10 0 | | |
| .. | | .. | 0 14 4 | 5 2 10 | | 4 13 3 | | 5 16 2 | | |
| .. | | .. | .. | 2 5 0 | | 2 5 0 | | 1 7 6 | | |
| .. | | £9 5 0 | £3 19 4 | £169 12 10 | ·20 | £173 11 3 | ·56 | £158 13 8 | ·53 | |
| .. | | 9 5 0 | 3 19 4 | 173 11 3 | ·56 | | | | | |
| .. | | 8 0 0 | 2 18 6 | 158 13 8 | ·53 | | | | | |
| 3 5 0 | | 10 4 0 | .. | 21 19 0 | | 21 19 0 | | 18 16 0 | | |
| 94 0 5 | | .. | .. | 342 6 4 | | 339 5 0 | | 330 0 0 | | |
| 94 12 2 | | .. | .. | 331 2 3 | | 339 0 6 | | 321 9 0 | | |
| 1 14 1 | | .. | .. | 4 3 4 | | 3 3 0 | | 6 0 6 | | |
| 2 10 7 | | .. | .. | 7 9 10 | | 8 0 2 | | 10 4 0 | | |
| .. | | .. | .. | 7 11 0 | | 6 4 0 | | 5 3 0 | | |
| 19 9 4 | | 5 10 0 | .. | 71 1 8 | | 72 4 2 | | 74 2 9 | | |
| 2 5 | | .. | .. | 8 9 11 | | 10 0 0 | | 6 9 11 | | |
| 218 0 0 | 2·51 | 15 14 0 | .. | 794 3 4 | | 799 15 10 | | 772 5 2 | | |
| .. | | 60 0 0 | .. | 60 0 0 | | 60 0 0 | | 51 10 6 | | |
| 2 3 7 | | .. | .. | 4 10 7 | | 4 11 0 | | 4 8 0 | | |
| .. | | .. | .. | 4 8 0 | | 4 8 0 | | 3 18 6 | | |
| .. | | .. | .. | 2 12 0 | | 3 3 0 | | 2 10 0 | | |
| 0 17 0 | | .. | .. | 3 8 0 | | 4 8 6 | | 3 6 0 | | |
| 0 15 2 | | .. | .. | 4 14 6 | | 3 9 10 | | 4 19 0 | | |
| .. | | 57 16 4 | .. | 57 16 4 | | 56 18 6 | | 50 10 2 | | |
| 2 12 11 | | 20 5 6 | .. | 40 7 5 | | 35 15 0 | | 39 14 4 | | |
| £224 8 8 | 2·59 | £153 15 10 | .. | £972 0 2 | 3·12 | £972 9 8 | 3·12 | £933 1 8 | 3·13 | |
| 230 3 8 | 2·65 | 143 16 4 | .. | 972 9 8 | 3·12 | | | | | |
| 233 5 3 | 2·83 | 140 10 0 | .. | 933 1 8 | 3·13 | | | | | |

**Form No. 20**—(*continued*).— ANALYTICAL STATEMENT OF

| | ..... Power Station | | ..... Depôt | | ..... Depôt | | ..... Depôt | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile |
| | £ s d | D | £ s d | D | £ s d | D | £ s d | D |
| GENERAL:— | | | | | | | | |
| Permanent Way .. .. .. | .. | | .. | | .. | | .. | |
| Works .. .. .. .. | .. | | .. | | .. | | .. | |
| Car Repairers at Depôts .. | .. | | 13 19 0 | ·16 | .. | | 19 10 6 | ·14 |
| Buildings— | | | | | | | | |
| Capital .. .. .. .. | 140 0 0 | | .. | | 10 4 3 | | .. | |
| Maintenance .. .. .. | | | | | | | | |
| Overhead Repairers, &c. .. | .. | | 33 9 4 | | 19 17 7 | | .. | |
| Ducts and Feeder Cables .. | .. | | .. | | .. | | .. | |
| Horsing .. .. .. .. | .. | | 8 15 2 | | 1 5 8 | | .. | |
| Miscellaneous .. .. .. | .. | | 5 1 3 | | 2 19 0 | | .. | |
| Totals .. | £140 0 0 | | £61 4 9 | ·71 | £34 6 6 | | £19 10 6 | ·14 |
| Totals (last week).. .. .. | 155 6 11 | | 63 10 8 | ·72 | 24 13 6 | | 20 6 5 | ·14 |
| Totals (corrs. week last year) .. | 160 0 0 | | 59 0 7 | ·72 | 30 12 0 | | 14 0 3 | ·10 |
| Grand Totals .. | £277 10 0 | | £292 9 3 | 3·43 | £48 17 0 | | £386 9 8 | 2·79 |
| Grand Totals (last week) .. | 296 19 11 | | 299 5 7 | 3·48 | 40 7 11 | | 386 0 8 | 2·78 |
| Grand Totals (cor. w'k last year) | 290 0 0 | | 278 17 9 | 3·42 | 47 7 2 | | 354 9 6 | 2·65 |
| Car Mileage .. .. .. .. | .. | | 20,671 | | .. | | 33,236 | |
| " (last week) .. .. | .. | | 20,655 | | .. | | 33,243 | |
| " (corr. week last year) | .. | | 19,563 | | .. | | 32,104 | |



WAGES for Week ending ..... 190..

| ..... Depôt | | Head Office | General | Totals | | Totals (last week) | | Totals (corr. week last year) | | Last Financial Year |
|---|---|---|---|---|---|---|---|---|---|---|
| Amount | Av. per Mile | | | Amount | Av. per Mile | Amount | Av. per Mile | Amount | Av. per Mile | Av. per Mile |
| £ s d | D | £ s d | £ s d | £ s d | D | £ s d | D | £ s d | D | |
| .. | | .. | 488 11 0 | 488 11 0 | | 486 10 2 | | 440 3 7 | | |
| .. | | .. | 696 10 0 | 696 10 0 | | 690 3 1 | | 651 0 2 | | |
| 14 10 0 | ·17 | .. | 24 4 2 | 72 3 8 | ·23 | 69 5 0 | ·22 | 50 3 5 | ·17 | |
| .. | | .. | .. | 150 4 3 | | 145 9 7 | | 80 0 0 | | |
| .. | | 6 10 0 | .. | 59 16 11 | | 60 0 4 | | 100 2 6 | | |
| .. | | 22 0 4 | .. | 22 0 4 | | 24 4 0 | | 30 0 0 | | |
| .. | | .. | .. | 10 0 10 | | 11 9 0 | | 19 3 0 | | |
| .. | | 65 19 9 | .. | 74 0 0 | | 68 2 7 | | 50 0 0 | | |
| £14 10 0 | ·17 | £94 10 1 | 1,209 5 2 | 1,573 7 0 | 5·06 | 1,555 3 9 | 4·99 | 1,420 12 8 | 4·77 | |
| 15 5 6 | ·17 | 94 18 0 | 1,181 2 9 | 1,555 3 9 | 4·99 | | | | | |
| 19 2 1 | ·23 | 74 12 5 | 1,063 5 4 | 1,420 12 8 | 4·77 | | | | | |
| £238 18 8 | 2·76 | £257 10 11 | 1,213 4 6 | 2,715 0 0 | 8·72 | | | | | |
| 245 9 2 | 2·82 | 247 19 4 | 1,185 2 1 | 2,701 4 8 | 8·68 | | | | | |
| 252 7 4 | 3·06 | 223 2 5 | 1,066 3 10 | 2,512 8 0 | 8·45 | | | | | |
| 20,790 | | .. | .. | 74,697 | | | | | | |
| 20,830 | | .. | .. | 74,728 | | | | | | |
| 19,789 | | .. | .. | 71,456 | | | | | | |

**Form No. 21.—**

WAGES VOUCHER for Week ending.....

| | Amounts | | |
|---|---|---|---|
| | £ s d | £ s d | £ s d |
| POWER:— | | | |
| Generating Station— | | | |
| Superintendent .. .. .. .. | 2 8 0 | | |
| Engineers .. .. .. .. .. | 23 19 0 | | |
| Greasers .. .. .. .. .. .. | 40 9 0 | | |
| Feeder Pump Attendants .. .. .. | 3 15 0 | | |
| Stokers .. .. .. .. .. .. | 13 10 0 | | |
| Coal and Ash Attendants .. .. .. | 12 4 4 | | |
| Electrical Engineers .. .. .. .. | 9 0 0 | | |
| Switchboard Attendants .. .. .. | 8 12 0 | | |
| Loco. Cranemen .. .. .. .. | 1 8 8 | | |
| Electrical Cranemen .. .. .. .. | .. | | |
| Cleaners .. .. .. .. .. .. | 14 18 0 | | |
| Labourers .. .. .. .. .. | 2 0 0 | | |
| Clerks and Storemen .. .. .. . | 5 6 0 | | |
| Miscellaneous .. .. .. .. .. | | | |
| | | 137 10 0 | |
| Sub-Stations— | | | |
| Switchboard Attendants .. .. .. | .. | 24 15 0 | |
| Assistant Switchboard Attendants.. .. | .. | 5 2 10 | |
| Cleaners .. .. .. .. .. .. | .. | 2 5 0 | |
| | | | 169 12 10 |
| TRAFFIC:— | | | |
| Depôt Clerks .. .. .. .. .. | 21 19 0 | | |
| Motormen .. .. .. .. .. | 346 9 8 | | |
| Conductors .. .. .. .. .. | 346 3 1 | | |
| Traffic Regulators .. .. .. .. | 60 0 0 | | |
| Sandmen .. .. .. .. .. | 4 10 7 | | |
| Lorrymen .. .. .. .. .. | 2 12 0 | | |
| Trackmen .. .. .. .. .. | 4 8 0 | | |
| Trolley Boys .. .. .. .. .. | 3 8 0 | | |
| Point Boys .. .. .. .. .. | 4 14 6 | | |
| Miscellaneous .. .. .. .. .. | 40 7 5 | | |
| | | 834 12 3 | |
| Car Cleaners .. .. .. .. .. | .. | 71 1 8 | |
| Car Greasers .. .. .. .. .. | .. | 8 9 11 | |
| Ticket Inspectors .. .. .. .. | .. | 57 16 4 | |
| | | | 972 0 2 |
| GENERAL:— | | | |
| Permanent Way .. .. .. .. | 488 11 0 | | |
| Works .. .. .. .. .. .. | 696 10 0 | | |
| Car Repairers at Depôts .. .. .. | 72 3 8 | | |
| Buildings— | | | |
| Capital.. .. .. .. .. .. | 150 4 3 | | |
| Maintenance .. .. .. .. .. | .. | | |
| | | 1,407 8 11 | |
| Overhead Equipment .. .. .. | .. .. | 59 16 11 | |
| Ducts and Feeder Cables .. .. .. | .. .. | 22 0 4 | |
| Horsing .. .. .. .. .. .. | .. .. | 10 0 10 | |
| Miscellaneous .. .. .. .. .. | .. .. | 74 0 0 | 1,573 7 0 |
| | | | £2,715 0 0 |

Received Cash and Paid Wages as above amounting to £2,715 : 0 : 0

.....Wages Clerk.



**Form No. 22.—**

REQUISITION FROM GENERAL STORES FOR STORES TO BE PURCHASED

*Date*.....19..

| Article No. (As per Standard List) | Description | Quantity | Purpose | Date Delivery Required | Purchase Order No. | From whom Ordered | Receivals | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Quantity | Date | Quantity | Date |
| | | | | | | | | | | |

Certified..... Requisitioned by.....

**Form No. 23.—**

PURCHASE ORDER.

.....190

To.....

.....

Please Supply:—

| Receivals | | Article No. | Description | Quantity | Price | Delivery Required | |
|---|---|---|---|---|---|---|---|
| Date | Quantity | | | | | Place | Date |
| | | | | | | | |

Account Chargeable.....

.....General Manager.

Detailed Advice Note to accompany Goods. Priced Invoice to be sent to Head Office same day. On both Advice Note and Invoice the Article Number and Order Number to be quoted.

NOTE.—The columns headed "Receivals" would not be printed on the form which would be sent out.

**Form No. 24.—** GOODS RECEIVED BOOK.

| Date Received | Order No. | Received from | Goods Received | | | | | | | Rate | Net Amount | Posted | Receive Note Signed and sent to H.O. | | Compared with Allocated Invoices by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Article No. | Description | Quant'y | T. | C. | Q. | L. | | | | Date | Signed by | |
| | | | | | | | | | | | £ s d | | | | |

NOTE.—The Rate, Amount, and Stock Account No. columns, and also the last column, are for use only at the Head Office on the copy which is sent there.

**Form No. 25.—** UNFULFILLED REQUISITIONS BOOK.

| Date | Requisition No. | Depôt | Article No. | Description | Quantity or Weight | Date Dispatched | Attended to by |
|---|---|---|---|---|---|---|---|
| | | | | | | | |



**Form No. 26.—** DISPATCH NOTE. No.....

| Signed Duplicate Received | |
|---|---|
| Date | Initials |
| | |

.....190..

*From*..... *To*.....

| Requisition No. | Article No. | Description | Quantity | Cwts. qrs. lbs. | Received by | Account Chargeable | Posted |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Original and Duplicate to accompany Goods; original to be signed by receiver, certifying correct receipt of Goods, and returned to store. Its receipt there will be recorded on triplicate retained in the book, and it will be sent to Head Office. The duplicate will be retained by receiver.

**Form No. 27.—** STORES ISSUES ALLOCATION SHEET.

ALLOCATION OF GOODS ISSUED FROM GENERAL STORES during Week ending.....190

| Requisit'n No. | Dispatch Note No. | Sent to | Description of Goods | Quantity | T. C. Q. L. | Rate | Amount | Accountant's Chargeable | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Car Works Stock Account | Per. Way Yard Account | ....Depôt Store Account | ....Depôt Store Account | Power Station Store Account | &c. |
| | | | | | | | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |

**Form No. 28.—** STOCK ACCOUNT. SECTION A.

4″ × $\frac{7}{8}$″ SQUARE ROUND HEX BOLTS AND NUTS. No. 16 E.

| RECEIVED | | | | | | | ISSUED | | | | | | | STOCK | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Stores Rec'd. Bk. Fol. | Received from | | | | Price | Date | Dis-patch NoteNo | | | | Price | | Date | Account Stock Quantity or Weight | | Actual Stock Quantity or Weight | | Initials |
| | | | | cwts. | qrs. | lbs. | | | | cwts. | qrs. | lbs. | cwt. | | cwts. | qrs. | lbs. | cwts. qrs. lbs. | |
| 1/6/01 | .. | To Stock .. .. | | 2 | 1 | 26 | 13/3 | 3/6/01 | 2,156 | 0 | 3 | 6 | 13/3 | 31/5/02 | 3 | 0 | 16 | 3 0 16 | |
| 5/8/01 | 72 | T. Tudhope & Co. | | 4 | 2 | 16 | " | 5/6/01 | 2,227 | 0 | 3 | 2 | " | | | | | | |
| 7/11/01 | 84 | Do. .... | | 4 | 3 | 2 | " | 5/7/01 | 2,328 | 1 | 2 | $5\frac{1}{2}$ | " | | | | | | |
| 9/12/01 | 96 | Do. .. | | 4 | 2 | 18 | " | 2/9/01 | 2,406 | 1 | 0 | 6 | " | | | | | | |
| 4/2/02 | 104 | Do. .. | | 2 | 0 | 7 | " | 8/9/01 | 2,417 | 0 | 3 | 27 | " | | | | | | |
| 15/4/02 | 115 | Do. .. | | 1 | 0 | 0 | " | 14/10/01 | 2,498 | 1 | 2 | 16 | " | | | | | | |
| | | | | | | | | 26/10/01 | 2,527 | 1 | 1 | 14 | " | | | | | | |
| | | | | | | | | 7/11/01 | 2,602 | 1 | 0 | 0 | " | | | | | | |
| | | | | | | | | 14/12/01 | 2,747 | 0 | 3 | $4\frac{1}{2}$ | " | | | | | | |
| | | | | | | | | 1/2/02 | 2,856 | 1 | 2 | 17 | " | | | | | | |
| | | | | | | | | 2/3/02 | 2,934 | 0 | 3 | 24 | " | | | | | | |
| | | | | | | | | 15/3/02 | 3,058 | 1 | 0 | 6 | " | | | | | | |
| | | | | | | | | 26/3/02 | 3,179 | 1 | 0 | 2 | " | | | | | | |
| | | | | | | | | 17/4/02 | 3,342 | 1 | 3 | 7 | " | | | | | | |
| | | | | | | | | 31/5/02 | Stock | 3 | 0 | 16 | " | | | | | | |
| | | | | 19 | 2 | 13 | | | | 19 | 2 | 13 | | | | | | | |
| 1/6/02 | .. | To Stock .. .. | | 3 | 0 | 16 | 13/3 | | | | | | | | | | | | |



**Form No. 29.—** WAGONS RECEIVED BOOK.

| Date | Colliery | Description | Wagon No. | Gross | | | Tare | | | Net | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Tons | cwts. | qrs. | Tons | cwts. | qrs. | Tons | cwts. | qrs. |
| | | | | | | | | | | | | |

**Form No. 30.—** FUEL RECEIVALS AND STOCK BOOK.

| Date | Senders | Description | Net Weight as per Advice Note | Net Weight as per Weigher's Book (Cal). | Net Weight as per Weigher's Book (N.B.) | Daily Totals | Daily Consumpt | Stock |
|---|---|---|---|---|---|---|---|---|
| | | | Ts. cwts. qrs. | Ts. cwts. qrs. | Ts. cwts. qrs. | Ts. cwts. qrs. | Ts. cwts. qrs. | Ts. cwts. qrs. |
| | | | | | | | | |

**Form No. 31.—** DAILY LOG.

At Midnight on ..... 190.. ..... Generating Station.

Barometer .... Thermometer .... From Midnight on ..... to Midnight on ..... 190..

MAIN ENGINES AND ALTERNATORS.

| Engine No. | On or Off Load | No. 1 Shift | | | | No. 2 Shift | | | | No. 3 Shift | | | | Hours Run |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | |
| | | H M | H M | | | H M | H M | | | H M | H M | | | |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |

AUXILIARY ENGINES AND GENERATORS.

| Engine No. | On or Off Load | No. 1 Shift | | | | No. 2 Shift | | | | No. 3 Shift | | | | Hours Run |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | |
| | | H M | H M | | | H M | H M | | | H M | H M | | | |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |

EXCITER ENGINES AND GENERATORS.

| Engine No. | Light or Load | No. 1 Shift | | | | No. 2 Shift | | | | No. 3 Shift | | | | Hours Run |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | From | To | Vacuum | Pressure | |
| | | M M | H M | | | H M | H M | | | H M | H M | | | |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |



**Form No. 31** (*continued*).—

BOILERS.

| Numbers | No. 1 Shift | | No. 2 Shift | | No. 3 Shift | | Pressure | Superheater |
|---|---|---|---|---|---|---|---|---|
| | From | To | From | To | From | To | | |
| | H M | H M | H M | H M | H M | H M | | On Off |
| | | | | | | | | |

ECONOMISERS.

| No. | No. 1 Shift | | | No. 2 Shift | | | No. 3 Shift | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | Temp. | From | To | Temp. | From | To | Temp. |
| | H M | H M | | H M | H M | | H M | H M | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |

| CURRENT GENERATED. | | | CIRCUIT BREAKER OUT. | | | WATER (Gallons) | |
|---|---|---|---|---|---|---|---|
| | K. W. H. | | No. | Time | Cause | | |
| Aux. Generators .. | | | | | | Main Water Meter | |
| No. 1 Alternator .. | | | | | | No. 1 | |
| " 2 " .. | | | | | | No 2 | |
| " 3 " .. | | | | | | Feed Water Meter | |
| " 4 " .. | | | | | | No. 1 | |
| Lighting Station .. | | | | | | No. 2 | |
| Aux. Plant .. .. | | | | | | No. 3 | |
| | | | | | | No. 4 | |
| | | | | | | No. 5 | |
| | | | | | | Station Supply | |
| | | | | | | Lbs. of Water per K. W. H. | |

**Form No. 31** (*continued*).—

| Circulating and Air Pumps. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | No. 1 Shift | | | | No. 2 Shift | | | | No. 3 Shift | | | |
| | From | | To | | From | | To | | From | | To | |
| | H | M | H | M | H | M | H | M | H | M | H | M |
| Aux. | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |

| Feed Pumps. | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | No. 1 Shift | | | | No. 2 Shift | | | | No. 3 Shift | | | | Temp. | |
| | From | | To | | From | | To | | From | | To | | | |
| | H | M | H | M | H | M | H | M | H | M | H | M | | |
| Steam | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |

Motors.

| Shift No. | Conveyor No. 1 | | | | Conveyor No. 2 | | | | Stoker No. 1 | | | | Stoker No. 2 | | | | Stoker No. 3 | | | | Stoker No. 4 | | | | Economiser No. 1 | | | | Economiser No. 2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | | To | | From | | To | | From | | To | | From | | To | | From | | To | | From | | To | | From | | To | | From | | To | |
| | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M | H | M |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



**Form No. 31** (*continued*).—

| Chimneys and Flues. | | | | | | | | | | Coal. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. 1 Shift | | | No. 2 Shift | | | No. 3 Shift | | | No. 1 Shift | No. 2 Shift | No. 3 Shift | Total |
| | Temperature | | | Temperature | | | Temperature | | | | | | |
| | Before Economiser | After Economiser | Draught | Before Economiser | After Economiser | Draught | Before Economiser | After Economiser | Draught | Tons Cwts. | Tons Cwts. | Tons Cwts. | Tons Cwts. |
| No. 1 Flue | | | | | | | | | | | | | |
| No. 2 Flue | | | | | | | | | | Consumpt per K. W. H. Generated ..... lbs. | | | |

| Boilers Blown Down. | | Soot Blown off Tubes. | | Economisers Blown Down. | |
|---|---|---|---|---|---|
| No. | Time | No. | Time | No. | Time |
| | | | | | |

| Remarks by Shift Engineer. No. 1 Shift. | Remarks by Shift Engineer. No. 2 Shift. | Remarks by Shift Engineer. No. 3 Shift. | Remarks by Station Superintendent. |
|---|---|---|---|
| | | | |

..... *Station Superintendent.*

**Form No. 32.—** REQUISITION FOR GOODS TO BE PURCHASED. No.....

(For Goods to be purchased which cannot be supplied from General Stores.)

Depôt or Department ..... Date.....

| Article No. (as per List) | Quantity | Description | Account Chargeable | Order No. | From whom Ordered | Goods Received | |
|---|---|---|---|---|---|---|---|
| | | | | | | Date | Initials |
| | | | | | | | |

Certified..... Requisitioned by.....

**Form No. 33.—** No. 901.

| CERTIFIED. |
|---|
| |

REQUISITION TO GENERAL STORES.

Depôt or Department.....

Date.....

To be sent to Head Office per Dispatch Bag, on Monday morning only.

| Quantity | Article No. (as per Standard List) | Description | Account Chargeable | Dispatched by | Dispatch Note No. | Entered in Unfulfilled Requisitions Book | Goods Received at Depôt | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Date | Initials |
| | | | | | | | | |

**Form No. 34.—** GOODS RECEIVED BOOK.

| Date Received | Order No. | Received From | Goods Received | | | | Posted | Receive Note Signed and Sent to Head Office or General Stores | | Account Chargeable | Compared with Allocated Invoices by |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Article No. | Description | Quantity | T. C. Q. L. | | Date | By | | |
| | | | | | | | | | | | |

**Form No. 35.—** FOREMAN'S REQUISITION.

*Date* ..... 190 .... *No*.....

| Material Required | | | | | Article No. (as per Standard List) | Description | Material Returned | | |
|---|---|---|---|---|---|---|---|---|---|
| Account No. | Car No. | A Accident, O Ordinary Repair | Quantity | Cwts. Qrs. lbs. | | | Quantity | Cwts. Qrs. lbs. | G Good, S Scrap |
| | | | | | | | | | |

*Foreman's Signature*.....

**Form No. 36.—** RETURN OF MATERIAL.

.....Depôt. Week ending.....190.... No.....

| To be filled in at Depôts | | | | | | | | | | To be filled in at Head Office | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Account Number | A Accident; O Ordinary Tear and Wear | For Material used mark *Dr.*; and for Material taken out of use mark *Cr.* in this column | G Good; S Scrap (for Credits) | Material | | | | | | Posted | Rate | Amounts (Debits) | | | Amounts (Credits) | | | Ledger Folio | *Crs.* Checked with Sig'd Triplicate Orders |
| | | | | Article No. | Description | Quantity | cwts. | qrs. | lbs. | | | £ s d | £ s d | | £ s d | £ s d | | | |
| 1 | O | *Dr.* | .. | .. | Platform Step .. | 1 | .. | | | 694 | 4/2 each | .. | 0 4 2 | | | | | 6 | |
| 2 | O | *Dr.* | .. | .. | Gong Tramps .. | 4 | .. | | | 3 | 2½d. " | .. | 0 0 10 | | | | | 12 | |
| 7 | O | *Dr.* | .. | .. | Brake Shoes .. | 7 | 1 | 1 | 14 | 48 | 10/- cwt. | .. | 0 13 9 | | | | | 16 | |
| 7 | O | *Cr.* | S | .. | Do. .. | 7 | 1 | 0 | 0 | .. | 45/- ton | | | | | 0 2 3 | | 16 | |
| 15 | A | *Dr.* | .. | .. | Trolley Standard | 1 | .. | | | 73 | £14 | 14 0 0 | | | | | | | |
| 15 | A | *Cr.* | G | .. | Do. .. | 1 | .. | | | .. | £14 | " " " | .. | | 14 0 0 | | | | |
| 15 | A | *Dr.* | .. | .. | Trolley Head .. | 1 | .. | | | 75 | 25/- | 1 5 0 | | | | | | | |
| 15 | A | *Cr.* | S | .. | Do. .. | 1 | 0 | 0 | 13 | .. | 51/- cwt. | " " " | 15 5 0 | | 0 5 11 | | | | |
| | | | | | | | | | | | | | | | | 14 5 11 | | 336 | |
| | | | | | | | | | | | | | £16 3 9 | | | £14 8 2 | | | |



**Form No. 37.—** No.....

| Signed Original received and sent to Head Office. | |
|---|---|
| Date | Initials |
| | |

DISPATCH NOTE (SCRAP).

.....*Depôt.*

*To*..... *Date*.....190..

| Article No. (as per Standard List) | Description of Material | Quantity | Tons | Cwts. | Qrs. | Lbs. | Ozs. | Material originally Charged to |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

Signature of Sender,..... Signature of Receiver.....

NOTE.—These forms to be used *only* for sending with Scrap. Original and duplicate to be sent with Scrap. Original to be signed by Receiver and returned to Sender, who will record on triplicate retained in the book the date when he receives back the signed original. The latter will then be sent to Head Office (Accountant's Dept.). Duplicate will be retained by receiver of Scrap.

**Form No. 38.—**

LIST OF ACCOUNTS.

*Only Account Numbers as under to be quoted in filling up this Return.*

| Account No. | Title of Account |
|---|---|
| | CARS—MECHANICAL PORTION :— |
| 1 | Car Body (including panels, glass, commode handles, roof and roof rails, canopy rods, platforms and steps, laths in and out, top seats, inside seat framing, &c., and doors). |
| 2 | Gongs. |
| 3 | Draw-bars and Couplings. |
| 4 | Stairs and Stair Rails. |
| 5 | Dashes. |
| 6 | Gates. |
| 7 | Hand Break Gear and Shoes. |
| 8 | Destination and Slip Boards. |
| 9 | Truck Frames (including everything in connection with truck except axles, wheels, axle boxes, and bearings). |
| 10 | Axles, Axle Boxes, and Bearings. |
| 11 | Wheels. |
| 12 | Life Guards. |
| 13 | Sand Gear. |
| 14 | Miscellaneous. |
| | CARS—ELECTRICAL PORTION :— |
| 15 | Trolley Wheels, Poles, and Standard. |
| 16 | Motor Wiring. |
| 17 | Lighting Circuit. |
| 18 | Bell Circuit. |
| | MOTORS :— |
| 19 | Auto. Cut-out, Canopy Switch, and Fuse Box. |
| 20 | Rheostats and Lightning Arrestor. |
| 21 | Controllers. |
| 22 | Field Coils. |
| 23 | Armatures. |
| 24 | Commutators |
| 25 | Bearings. |
| 26 | Gears, Gear Cases, and Pinions. |
| 27 | Brushes and Brush Holders. |

TRADESMEN'S TIME ALLOCATION RETURN.

| Compared with Wages Sheet and Certified | .....Depôt. | Certified by Foreman |
|---|---|---|
| | Week ending.....190.. | |

Tradesman's Name..... No.....

,, Occupation ..... Rate ....

| Account No. (as per adjoining List) | HOURS. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sun. | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Total |
| 15 | | 1 | 2 | 2 | | | 1 | 6 |
| 20 | | 1 | | 1 | | | 2 | 4 |
| 21 | | 6 | 5 | 4 | 4 | | | 19 |
| 23 | | | | 1 | | 2 | 3 | 6 |
| 26 | | | 2 | 1 | 5 | | 2 | 10 |
| 27 | | 1 | | | | 7 | 1 | 9 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 54 |

Tradesman's Signature.....



**Form No. 39.—** TRADESMEN'S WAGES ALLOCATION BOOK (DEPÔTS).

Week ending ..... 190...

| Ledger Account No. | Title | | Foremen | Motor Repairers Per Hour 8½d. | 8d. | 7½d. | 7d. | *Truck Repairers | Controller Repairers | Car Repairers | Painters | Handymen (Depôt) | | | Amounts £ s d | £ s d | Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | Trolley Wheels, Poles and Standard | Hours, | .. | .. | .. | 2A 4O | .. | .. | .. | .. | .. | .. | .. | .. | A 1 3 | | |
| | | Amount, | .. | .. | .. | 1/3 2/6 | .. | .. | .. | .. | .. | .. | .. | .. | O 2 6 | | |
| 20 | Rheostats and Lightning Arrestor | Hours, | .. | .. | .. | 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0 3 9 | 366 |
| | | Amount, | .. | .. | .. | 2/6 | | | | | | | | | | 0 2 6 | |
| 21 | Controllers .. | Hours, | .. | .. | .. | 19 | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| | | Amount, | .. | .. | .. | 11/10 | | | | | | | | | | 0 11 10 | |
| 23 | Armatures .. | Hours, | .. | .. | .. | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| | | Amount, | .. | .. | .. | 3/9 | | | | | | | | | | 0 3 9 | |
| 26 | Gears, Gear Cases & Pinions | Hours, | .. | .. | .. | 10 | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| | | Amount, | .. | .. | .. | 6/11 | | | | | | | | | | 0 6 11 | |
| 27 | Brushes and Brush Holders | Hours, | .. | .. | .. | 9 | .. | .. | .. | .. | .. | .. | .. | .. | .. | | |
| | | Amount, | .. | .. | .. | 5/7 | | | | | | | | | | 0 5 7 | |
| | | Hours, | | | | | | | | | | | | | | | |
| | | Amount, | | | | | | | | | | | | | | £1 14 4 | |
| | | Hours, | | | | | | | | | | | | | | | |
| | | Amount, | | | | | | | | | | | | | | | |
| | | Hours, | | | | | | | | | | | | | | | |
| | | Amount, | | | | | | | | | | | | | | | |

* This and the six following columns to be ruled similarly to "Motor Repairers."

**Form No. 40.—** DEPOTS EXPENDITURE LEDGER.

ACCOUNT No. 15, TROLLEY WHEELS, POLES, AND STANDARDS.

| Week ending | A Accident, O Ordinary tear and wear | .... ... Depôt | | | | ..... Depôt | | | | ..... Depôt | | | | Totals | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Credits (Material) | | Debits | | Credits (Material) | | Debits | | Credits (Material) | | Debits | | Credits (Material) | | Debits | |
| | | Scrap or Good | Amount | Time | Matl. | Scrap or Good | Amount | Time | Matl. | Scrap or Good | Amount | Time | Matl. | Scrap or Good | Amount | Time | Material |
| | | | £ s d | £ s d | £ s d | | £ s d | £ s d | £ s d | | £ s d | £ s d | £ s d | | £ s d | £ s d | £ s d |
| 1901 October 31 | O | | .. | .. | .. | | .. | 0 2 6 | | | | | | | | | |
| | A | | .. | .. | .. | G S | 14 0 0<br>0 5 11 | 0 1 3 | 15 5 0 | | | | | | | | |



**Form No. 41.—** GAS AND WATER RETURN.

..... *Depôt,*

*Week ending* .....190....

CONSUMPT FOR WEEK.

GAS—Reading of Meter this week - - - - - - - .....

" " last " - - - - - - - ..... Cubic Feet.

WATER— " " this " - - - - - - - .....

" " last " - - - - - - - ..... Gallons.

SALT ..... Tons ..... Cwts.....

SAND ..... Tons ..... Cwts.....

NUMBER OF CARS IN STOCK .....

*Signature*.....

**Form No. 42.**— ORDER TO WORKS. No.....

| Orders will not be accepted at the Works except on these official Forms, duly certified. |
|---|

..... Depôt or Department.

(This Order only to be used for work to be done on Cars sent to Works, or for miscellaneous work. Dispatch Notes to be sent to General Stores with all Car Parts to be repaired, and such not to be included in these orders.)

WORK ON CARS.

| Cars (with requisites as specified below)* | WORK TO BE DONE | Received Back | |
|---|---|---|---|
| | | Date | Initials |
| Nos. | | | |

* Each Car will be held to be signed for as having been received with the following movable requisites:—One set Controller Handles, Drawbar, Ramp, Gong, Sand Tramp, ....Lamps, and Slipboards.

MISCELLANEOUS WORK.

| Plant or Article (sent herewith) | WORK TO BE DONE | Account Chargeable | Received Back | |
|---|---|---|---|---|
| | | | Date | Initials |
| | | | | |

| Certified— | Certified— | Ordered by— |
|---|---|---|
| ..... Chief Engineer. | ..... Rolling Stock Supt. | ..... |

Received the above-mentioned.....

NOTE.—Original and Duplicate will be sent to Works with Cars, Plant, or Articles. Original will be retained at Works, and duplicate will be signed, certifying the correct receipt of the Cars, Plant, or Articles, and returned to the Depôt. The triplicate retained in the Order Book will be dated and initialled when the signed duplicate is received back. The latter will then be sent to Accountant's Department. The dates when Cars, Plant, or Articles are received back from Works will be recorded in the column for the purpose.



**Form No. 43.**— CAR WORKS ORDER BOOK.

| Works Order No. | Orders Received | | | Car No. | Article No. (as per Standard List of Stores). | Particulars | Requ'rd for | A Accident, O Ordinary tear and wear | Chargeable to | | Foremen's Instructions issued (Page Nos). | Date Completed | Dispatch Note Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Date of Order | Depôt or Depart. | No. | | | | | | Account No. | Job No. | | | |
| | | | | | | | | | | | | | |

**Form No. 44.—**

No.....

| Issued by |
|---|
| |

## INSTRUCTIONS TO WORKS FOREMEN.

| Certified Works Manager |
|---|
| |

INSTRUCTIONS TO.....FOREMAN.

Works Order No..... Outside Order No..... Date.....

Goods to be forwarded to.....

Works Foremen not to accept Orders except on these Official Forms. This Order to be handed to General Store with completed Goods.

| Car No. | Article No. (as per Standard List) | Chargeable to | | PARTICULARS OF WORK |
|---|---|---|---|---|
| | | Account No. | Job No. | |
| | | | | |

The above-mentioned work has been completed.

| DATE | | | |
|---|---|---|---|
| .... | .... | .... | ..... |
| .... | .... | .... | ..... |
| .... | .... | .... | ..... |

} *Foremen.*

Received the above-mentioned goods.

.....*Storekeeper.*

Dispatch Note No.....



**Form No. 45.—**

## GOODS RECEIVED BOOK.

| Date Received | Order No. | Received From | Goods Received | | | | Rate | Net Amount | Account Chargeable | Posted | Receive Note Signed and sent to H.O. | | Compared with Allocated Invoices by |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Article No. | Description | Quantity | T. C. Q. L. | | | | | Date | Signed by | |
| | | | | | | | | | | | | | |

**Form No. 46.—**

RETURNS OF MATERIAL.

..... Works.

Week ending.....190....

| Account No. | A Accident, O Ordinary Maintenance | S Scrap, G Good (for Credits) | Article No. (as per Standard List) | Material Used and Particulars of Work Done | Quantity | T. | C. | Q. | lbs. | Rate | Amounts £ s d | Amounts £ s d | Expenditure Ledger Fo. | Stock Account posted |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79/255 | .. | .. | .. | General Stores Stock A/c— 2-in. Mild Steel for Links .. | .. | 0 | 3 | 1 | 12 | 9/3 cwt. | 1 11 0 | | | |
| | .. | .. | .. | Car Maintenance — | | | | | | | | | | |
| | A | .. | .. | Car 590, 2 Side Glasses, 38¾ by 29¼ by ¼ | 2 | | | .. | | 9/6 each | 0 19 0 | | | |
| | | | | " " 2 9' 10" Lengths Grooved Rubber Strips .. | = Length 19' 8" | | | .. | | 1d. foot | 0 1 8 | | | |
| 39/10 | .. | .. | .. | New D. D. Cars Account— Glass— | | | | | | | | | | |
| | | | | Side Glasses, 39¾ by 29¼ by ¼ | 10 | | | .. | | 9/6 each | 4 15 0 | | | |
| | | | | 9' 10" Lengths Grooved Rubber Strips .. .. | 10=98' 4" | | | .. | | 1d. foot | 0 8 2 | | | |

**Form No. 47.**—See page 62.



**Form No. 48.—**

TIME ALLOCATION RETURN.

..... Works.

Week ending...../..../....

Tradesman's Name.....

| | Account No. (as per List) | Hours | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Thurs. | Friday | Sat/Sun | Monday | Tues. | Wed. | Total |
| No..... Rate..... Occ..... | | | | | | | | |
| No..... Rate..... Occ..... | | | | | | | | |
| No..... Rate..... Occ..... | | | | | | | | |
| No..... Rate..... Occ..... | | | | | | | | |
| No..... Rate..... Occ..... | | | | | | | | |
| Compared with Wages Sheet by | Totals.. | | | | | | | |

**Form No. 49.—** WAGES

ABSTRACT OF WAGES for Week

| LEDGER ACCOUNT | WOOD | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Car Builders | | | | Joiners | | | | Mill and Cartwrights | | | |
| Rates.. | | | | | | | | | | | | |
| Hours .. / Amount.. | | | | | | | | | | | | |
| Hours .. / Amount.. | | | | | | | | | | | | |
| Hours .. / Amount.. | | | | | | | | | | | | |
| Hours .. / Amount.. | | | | | | | | | | | | |

| LEDGER ACCOUNT | IRON | | | | | | | | | | | |

**Form No. 50.—** WORKS EXPENDITURE LEDGER.

| Date | Folio | Description of Work | A Accident, O Ordinary | Credits (Material) | | Debits | |
|---|---|---|---|---|---|---|---|
| | | | | Scrap | Good | Wages | Material |
| | | | | £ s d | £ s d | £ s d | £ s d |
| | | | | | | | |

**Form No. 51.—** WORKS COST BOOK.

LINKS FOR CARRYING BRAKE SHOES.

| Quantity Ordered | Job No. | Account Number | Expenditure | | | | | | | | | | | Deliveries at General Stores | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Date | Time | | | | Material | | | Total Time and Material | Cost Each | | | | |
| | | | | Designation | Hrs. | Rate | Amount | Particulars | Price | Amount | | | | Date | Quant'y | |
| | | | | | | | £ s d | C. q. lb. | Ton | £ s d | £ s d | £ s d | | | | |
| 100 | 255 | 79 | 25/3/02 | Smith & Hamn | 15¼ | 1/1½ | 0 17 4 | Mild Steel 3 1 12 | £9 5/- | 1 11 0 | 2 8 4 | .. | | 28/3/02 | 100 | |
| | | | 26/3/02 | " " | 88⅝ | " | 4 19 10 | .. | .. | .. | 4 19 10 | | | | | |
| | | | | | | | | | | | £7 8 2 | 0 1 5⅞ | | | | |



**Form No. 52.—** RECORD OF WORK DONE AT WORKS ON EACH CAR. Car No.....

Class..... Year Built..... Maker..... Put in Service.....

| Received | | Particulars of Work done | Dispatched | |
|---|---|---|---|---|
| From | Date | | To | Date |
| | | | | |

**Form No. 53.—** RETURN FROM WORKS OF CARS RE-WHEELED. No.....

*Date*.....190..

| Car No. | Removed | | | | | | | Put on | | | | | | Remarks (State here whether Wheels put on are new or partly worn, and, if partly worn, No. of Car last on). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wheels | | | | Truck No. | Axle Nos. | Motor Nos. | Wheels | | | Truck No. | Axle Nos. | Motor Nos. | |
| | Makers' Date | Makers' No. | Makers' Name | Cause | | | | Makers' Date | Makers' No. | Makers' Name | | | | |
| | | | | | | | | | | | | | | |

Signature.....

**Form No. 54.—** CAR WHEELS RECORD BOOK. Car No.....

Put in Service .....

| Put On | | | | | | Re-ground | | | Removed | | | | | | Car Located | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Makers' Name | Truck No. | Wheels | | | Date | Car Mileage (from date Put on) | Car Hours (from date put on) | Date | Cause | Car Mileage (from date Re-ground) | Car Hours (from date Re-ground) | Total Car Mileage | Total Car Hours | Depôt | Date |
| | | | Makers' No. | Makers' Date | | | | | | | | | | | | |



**Form No. 55.—**

## TIME ALLOCATION RETURN.

PERMANENT WAY DEPARTMENT.

.....Works.

Week ending...../.....190..

Tradesman's Name .....

| | Section No. and Nature of Work | Hours | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Thurs. | Friday | Sat/Sun | Monday | Tues. | Wed. | Total |
| No..... | | | | | | | | |
| Rate..... | | | | | | | | |
| Occ..... | | | | | | | | |
| No..... | | | | | | | | |
| Rate..... | | | | | | | | |
| Occ..... | | | | | | | | |
| No..... | | | | | | | | |
| Rate..... | | | | | | | | |
| Occ..... | | | | | | | | |
| No..... | | | | | | | | |
| Rate..... | | | | | | | | |
| Occ..... | | | | | | | | |
| No..... | | | | | | | | |
| Rate..... | | | | | | | | |
| Occ..... | | | | | | | | |
| Compared with Wages Sheet by | Totals .. | | | | | | | |

**Form No. 56.—** PERMANENT WAY WAGES ALLOCATION BOOK.

Week ending ..... 190....

| Section No. or Ledger Account | Yardman | Foremen | | Labourers | | | Pavoirs | | | Platelayers | | | Boilermen | | | Beaters | | | Dressers | | Stone Breakers | Rail Packers | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Per Week | Per Week | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Ton | Per Hour | Per Load | Per Hour | Per Hour | Per Hour |
| Time | | | | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | | | | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | | | | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | | | | |

| Section No. or Ledger Account | Carters | | | Bonders | | Borers | | Sizers | | | Bricklayers | | | Watchmen | Miscellaneous | | | Repairs | Renewals | Capital | Permanent Way Expenditure Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Per Day | Per Day | Per Day | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Hour | Per Load | Per Hour | Per Hour | £ s d | £ s d | £ s d | |
| Time | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | |
| Time | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | |
| Time | | | | | | | | | | | | | | | | | | | | | |
| Amount | | | | | | | | | | | | | | | | | | | | | |



**Form No. 57.—** DAILY RETURN OF MATERIAL RECEIVED.

PERMANENT WAY. Date.....190.. .....YARD.

| RECEIVED FROM | DESCRIPTION | Quantity | Tons | cwts. | qrs. | lbs. | Receive Note or Invoice signed and sent to Head Office | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Date | Initials |
| Smith & Co. .. .. .. | Granite Setts .. .. .. ..Loads | 20 | 40 | 0 | 0 | 0 | | |
| Jones & Co. .. .. .. | Sand .. .. .. .. .. .. " | 14 | 21 | 0 | 0 | 0 | | |
| General Stores .. .. .. | Bonds, 7" Flexible .. .. .. ..1 Box | 350 | | | | | | |
| Small & Co. .. .. .. | Scrap Rails .. .. .. .. Load | 1 | 1 | 10 | 0 | 0 | | |

Signature.....

**Form No. 58—** PERMANENT WAY RECEIVALS ALLOCATION BOOK (YARD).

| Date | Received from | Where Delivered | Received by | Invoice No. | Material | | | | Price | Amount | | Con-tract'rs' Mater'l Book Folio | Sand | | | Pitch | | | Oil | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Descript'n | Quant'y | T | C Q | | £ s d | £ s d | | T | C Q | Amount | T | C Q | Amount | Gallons | Amount |
| | | | | | | | | | | | | | | | £ s d | | | | | £ s d |

| Coal | | Cement | | Bonds | | Broken Metal | | Rails | | | | Fish Plates | | Fish Bolts | | Tiebars | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T Q C | Amount | Bags | Amount | Quant'y | Amount | T C Q | Amount | Feet | T | C Q | Amount | Quant'y | Amount | Quant'y | Amount | Qu'nty | Amount |
| | £ s d | | £ s d | | £ s d | | £ s d | | | | £ s d | | £ s d | | £ s d | | £ s d |

| Iron Blocks | | Redressed Stones | | New Stones | | Old Stones | | Joint Plates | | Old Rails | | Sundries | | | | Material Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quant'y | Amount | T C Q | Amount | T C Q | Amount | T C Q | Amount | Quant'y | Amount | | | Quantity | T | C Q | Amount | |
| | £ s d | | £ s d | | £ s d | | £ s d | | £ s d | | | | | | £ s d | |



**Form No. 59.—** YARD DISPATCH BOOK.

No.....

To..... .... .. .....

.....

PERMANENT WAY YARD,

Date..... .....190..

*RECEIVE HEREWITH—*

| | Cwts. | qrs. | lbs. |
|---|---|---|---|
| 100 Tiebars .. .. ... .. | 12 | 1 | 0 |
| 1 Bag $4\frac{1}{4} \times 1''$ Bolts .. .. .. | 1 | 0 | 4 |

*Carter's Signature*.....

NOTE.—Original to be retained in book. Duplicate to be retained by Receiver. Triplicate to be signed by Receiver and sent to Head Office (Accountant's Department) without delay.

**Form No. 60.—** ISSUES ALLOCATION BOOK (YARD)

| Date | Sent to | Where Delivered | Received by | Invoice No. | Material | | | Contractors' Material Book Folio | NEW | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Description | Quant'y | T C Q | | Red Sand | Clyde Sand | Coal | Pitch | Black Oil |
| | | | | | | | | | T C Q | T C Q | T C Q | T C Q | Gallons |
| | | | | | | | | | | | | | |

MATERIAL

| Cement | Bonds | | | | | | | Whin Chips | New Br. Metal | New Iron Pav. Blocks | Seal Oil | New Bricks | New Granite Setts | New Whin Setts | 4" F.C. Pipes | Char. | $4\frac{1}{4}$" x 1" Bolts | Tiebars | Leeds & B.V. Rails |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bags | 7" | 28" | 36" | 48" | 60" | | | T C Q | T C Q | T C Q | Gallons | Quant'y | T C Q | T C Q | Quant'y | T C Q | C Q lbs | C Q lbs | T C Q |
| | | | | | | | | | | | | | | | | | | | |

| Issued | | | Old Material Issued | | | | | | | | Sundries | | | Material Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Leeds & B.V. Rails | American Rails | American Fishplates | Scrap Rails | Old Bricks | Old Iron Pav. Blocks | Br. Metal (own) | Redressed Setts | Old Stones | Scrap Fishplates | Scrap Tiebars | Scrap Points | Quant'y | T C Q | Amount | |
| T C Q | T C Q | T C Q | T C Q | T C Q | T C Q | T C Q | T C Q | T C Q | T C Q | C Q lbs. | T C Q | | | £ s d | |
| | | | | | | | | | | | | | | | |

**Form No. 61.—** RECEIVALS ALLOCATION BOOK (STREETS). (Same Ruling practically as Form 58).



**Form No. 62.—** WEEKLY RETURN OF CONSUMPT ON STREETS—PERMANENT WAY.

Week ending ..... 190...

S. 29 Rep.

| Black Oil | | Coal | | Sand | | Pitch | |
|---|---|---|---|---|---|---|---|
| | | T C Q | | T C Q | | T C Q | |
| 40 Gallons | 1473* | 0 7 0 | 1467 | 1 5 0 | (Smith) Transferred from J 64 Rn. | 4 6 2 | (Jones) Transferred from J 64 Rep. |
| 40 " | 1483 | 0 4 0 | 1452 | 3 2 0 | | 1 1 0 | |
| | | 0 8 0 | 1584 | | | | |
| 80 " | | 0 19 0 | | 4 7 0 | | 5 7 2 | |

J. 64 Rn.

| Granite Setts | | Pitch | | Sand | |
|---|---|---|---|---|---|
| T C Q | | T C Q | | T C Q | |
| 52 4 3 | (Smith) | 2 3 2 | (Jones) | 4 9 0 | 1356 |
| 61 5 0 | (Robertson) | | | | |
| 5 2 0 | 1567 | | | | |
| 118 11 3 | | | | | |

* Note—The Numbers refer to Permanent Way Yard Dispatch Notes.

**Form No. 63.—** CONSUMPT ALLOCATION BOOK (STREETS).

| a.Date | Section | Repairs, Renewals or Extens'ns | Work Done | Material Used | | | Price | Amounts | | Expenditure Ledger Folio | Sand | | Pitch | | Oil | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Descript'n | Quant'y | T C Q | | £ s d | £ s d | | T C Q | Amount | T C Q | Amount | Gallons | Amount |
| | | | | | | | | | | | | £ s d | | £ s d | | £ s d |

| Coal | | Cement | | Bonds | | Broken Metal | | Rails | | | Fish Plates | | Fish Bolts | | Tiebars | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T C Q | Amount | Bags | Amount | Quant'y | Amount | T C Q | Amount | Feet | T C Q | Amount | Quant'y | Amount | Quant'y | Amount | Quant'y | Amount |
| | £ s d | | £ s d | | £ s d | | £ s d | | | £ s d | | £ s d | | £ s d | | £ s d |

| Iron Blocks | | Redressed Stones | | New Stones | | Old Stones | | Joint Plates | | | | Sundries | | | Material Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quant'y | Amount | T C Q | Amount | T C Q | Amount | T C Q | Amount | Quant'y | Amount | | | Quantity | T C Q | Amount | |
| | £ s d | | £ s d | | £ s d | | £ s d | | £ s d | | | | | | |



**Form No. 64.—** STOCK ACCOUNT—GRANITE SETTS.

| Received | | | | | | | | | Used | | | | | | | | Stock | | | Initials |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Folio | Received From | Quantity | Tons | Cwts. | Qrs. | Rate | Amount | Date | Folio | Quantity | Tons. | Cwts. | Qrs. | Rate | Amount | Date | Account Stock Quantity or Weight | Actual Stock Quantity or Weight | |
| | | | | | | | | £ s d | | | | | | | | £ s d | | | | |
| 1/5/01 | .. | To Stock .. | .. | 4 | .. | .. | 40/– | 8 0 0 | 20/6/01 | 184 | .. | 12 | .. | .. | 36/6 | 21 18 0 | | | | |
| 30/6/01 | .. | Various Firms | .. | 12 | .. | .. | 35·4 | 21 4 0 | | | | | | | | | | | | |

**Form No. 65.—** PERMANENT WAY EXPENDITURE LEDGER.

Section No. .... Streets .....

| Date | | Folio | Repairs | | Renewals | | Capital | | Credits (Material) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Wages | Material | Wages | Material | Wages | Material | R. Repairs Rn. Renewals C. Capital | Amount |
| | | | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | | £ s d |

**Form No. 66.**—

Abstract of Cost of Work done by PERMANENT WAY DEPARTMENT, from to 190 .

| Section or Account | Repairs | | Renewals | | Capital | | Totals | |
|---|---|---|---|---|---|---|---|---|
| | Wages | Material | Wages | Material | Wages | Material | Wages | Material |
| | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| | | | | | | | | |

**Form No. 67.**— RECORD OF MATERIAL SUPPLIED TO CONTRACTORS.

Contract No. 21. Section 10. Sub-Section B., ..... Contractor, .....

TIEBARS.

| Date | Yard Disp. Note No. or Invoice No. | Received From | Station or Quay | No. of Wagon or Name of Boat | Quan. | Weights | | | | Pur-chase Price | Amounts at Purchase Price | | Chargeable to Contractor | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | T. | C. | Q. | lb. | | Deliver'd Direct | Ex-Per. Way Yd. | Spec. Price | Amount at Spec. Price |
| | | | | | | | | | | £ s d | £ s d | £ s d | | £ s d |
| | | | | | | | | | | | | | | |



**Form No. 68.**—

| Compared with Wages Sheet and Certified | TIME ALLOCATION RETURN. OVERHEAD EQUIPMENT. | Certified by Foreman |
|---|---|---|
| | | |

Week ending.....190 .....Depôt.

Name,..... No..... Occupation..... Rate,.....

| Permanent Way Section or Junct'n No. (as per List) | Account No. (as under) | Hours | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sun. | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Total |
| | 1 | .. | 2 | 6 | 3 | 5 | 4 | 1 | 21 |
| 45 J | 2 | .. | 3 | 1 | .. | .. | .. | .. | 4 |
| 28 S | 3 | .. | 4 | .. | .. | .. | .. | .. | 4 |
| 28 S | 4 | .. | .. | 2 | 6 | .. | .. | .. | 8 |
| | 6 | .. | .. | .. | .. | 3 | 2 | 2 | 7 |
| | 7 | .. | .. | .. | .. | 1 | 3 | 5 | 9 |
| Total, | | .. | 9 | 9 | 9 | 9 | 9 | 8 | 53 |

ACCOUNT NUMBERS.

1 Time in Yard.

Renewals and Capital only:

2* Trolley wire; straight line hangers and ears; feeder splicing anchor and curve ears; double and single pull offs; emergency and fluted splicers; section insulators, frogs and crossovers.

3* Trolley span wire; large and small Brooklyn insulators; rosettes and bolts; poles; bands and bolts; anchor wires.

4* Guard span wire; guard wire; ball insulators; small rosettes; split links; Clevis balls.

5* Ground wires and jointed connectors.

6 Emergency Repairs Account.

7 Ordinary Inspection and Repairs Account.

*Permanent Way Section or Junction Numbers also to be quoted.

**Form No. 69.—** OVERHEAD EQUIPMENT WAGES ALLOCATION BOOK.

Week ending.....190 .

| Per. Way Section No. (as per list) | Account No. | Nature of Work | | For'm'n Lin'm'n | Linemen | | | | | | Tower Wagon Drivers | Miscel-laneous | Totals | | | Ledger Folio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 40/- | 7¾d. | 7½d. | 7¼d. | 7d. | 6½d. | 6d. | 5d. | | Repairs | Renewals | Capital | |
| | | | | | | | | | | | | | £ s d | £ s d | £ s d | |
| | 1 | Repairs | Time | .. | 60 | 53 | 54 | 72 | 80 | 39 | 91 | .. | | | | |
| | | | Amount | .. | £1 18/9 | £1 13/2 | £1 12/8 | £2 2/- | £2 3/4 | 19/6 | £1 17/11 | | 12 7 4 | | | |
| | 2 | " | Time | 56 | 45 | 19 | 67 | 34 | 21 | 60 | 49 | .. | | | | |
| | | | Amount | £2 | £1 9/1 | 11/11 | £2 0/6 | 19/10 | 11/5 | £1 10/- | £1 0/5 | | 10 3 2 | | | |
| | 3 | " | Time | .. | 20 | 40 | 60 | 34 | 47 | 25 | 74 | .. | | | | |
| | | | Amount | .. | 12/11 | £1 5/- | £1 16/3 | 19/10 | £1 5/6 | 12/6 | £1 10/10 | | 8 2 10 | | | |
| 46 | 2 | Renewal | Time | .. | 16 | .. | 15 | .. | 19 | .. | 31 | .. | | | | |
| | | | Amount | .. | 10/4 | .. | 9/1 | .. | 10/4 | .. | 12/11 | | .. | 2 2 8 | | |
| 46 | 3 | " | Time | .. | 4 | .. | 10 | .. | 16 | .. | 24 | .. | | | | |
| | | | Amount | .. | 2/7 | .. | 6/1 | .. | 8/8 | .. | 10/- | | .. | 1 7 4 | | |
| 46 | 4 | " | Time | .. | 3 | .. | 2 | .. | 6 | .. | 8 | .. | | | | |
| | | | Amount | .. | 1/11 | .. | 1/3 | .. | 3/3 | .. | 3/4 | | .. | 0 9 9 | | |
| J 46 | 2 | Capital | Time | .. | 7 | 8 | .. | 3 | .. | 2 | 18 | .. | | | | |
| | | | Amount | .. | 4/6 | 5/- | .. | 1/9 | .. | 1/- | 7/6 | | .. | .. | 0 19 9 | |
| | 7 | Ordinary | Time | .. | .. | 7 | .. | 9 | .. | .. | 9 | .. | | | | |
| | | | Amount | .. | .. | 4/5 | .. | 5/3 | .. | .. | 3/9 | | 0 13 5 | | | |
| | | | | £2 0 0 | £5 0 1 | £3 19 6 | £6 5 10 | £4 8 8 | £5 2 6 | £3 3 0 | £6 6 8 | | £31 6 9 | £3 19 9 | £0 19 9 | |

ABSTRACT.

| | £ s d |
|---|---|
| Repairs .. .. .. .. .. .. .. .. | 31 6 9 |
| Renewals .. .. .. .. .. .. .. | 3 19 9 |
| Capital .. .. .. .. .. .. .. | 0 19 9 |
| | £36 6 3 |



**Form No. 70.—** EXPENDITURE LEDGER (OVERHEAD EQUIPMENT).

| Week Ending | Folio | Account 2. Trolley Wire, &c. | | | | Account 3. Trolley Span Wire, &c. | | | | Account 4. Guard Span Wire, &c. | | | | Account 5. Ground Wires, &c. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Credits | | Debits | | Credits | | Debits | | Credits | | Debits | | Credits | | Debits | |
| | | Scrap | Good | Wages | Matl. | Scrap | Good | Wages | Matl. | Scrap | Good | Wages | Matl. | Scrap | Good | Wages | Matl. |
| | | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |

**Form No. 71.—**

| Compared with Wages Sheet and Certified | TIME ALLOCATION RETURN. | Certified by Foreman |
|---|---|---|
| | MAINS DEPARTMENT. | |

Week ending..... 190.... No. .....

Name .....

Occupation ..... Rate .....

| Account No. (as under). (R. Repairs; Rn. Renewals; C. Capital.) | Hours | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Fri. | Sat. | Sun. | Mon. | Tues. | Wed. | Thur. | Tota |
| | | | | | | | | |
| Total .. .. | | | | | | | | |

ACCOUNT NUMBERS.

No. 47. Rail Bonding.
" 48. Ducts and Manholes.
" 49. Feeder Cables.
No. 50. Section Boxes.
" 51. Telephones.



**Form No. 72.—**

STATEMENT OF REVENUE AND EXPENDITURE for week ending ..... 190..

| | Week ending | Week ending | Average per Car Mile | Percentage to Receipts * | Average per K. W. Hour | Remarks |
|---|---|---|---|---|---|---|
| | £ s d | £ s d | | | | |
| REVENUE. | | | | | | |
| Cars .. .. .. .. .. | | | | | | |
| Sundries .. .. .. .. | | | | | | |
| Total .. | | | | | | |
| EXPENDITURE. | | | | | | |
| I. POWER EXPENSES— | | | | | | |
| Salaries and Wages .. .. | | | | | | |
| Fuel .. .. .. .. .. | | | | | | |
| Oil, Waste, and Supplies .. | | | | | | |
| Gas .. .. .. .. .. | | | | | | |
| Water.. .. .. .. .. | | | | | | |
| Miscellaneous .. .. .. | | | | | | |
| Total .. | | | | | | |
| II. TRAFFIC EXPENSES— | | | | | | |
| Salaries .. .. .. .. | | | | | | |
| Wages .. .. .. .. | | | | | | |
| Cleaning and Oiling Cars .. | | | | | | |
| Lighting Cars .. .. .. | | | | | | |
| Cleaning Rails and Salting and Sanding Track .. .. .. | | | | | | |
| Fuel, Power, Light, and Water for Depôts.. .. .. .. | | | | | | |
| Ticket Check .. .. .. | | | | | | |
| License of Cars .. .. .. | | | | | | |
| Uniforms .. .. .. .. | | | | | | |
| Miscellaneous .. .. .. | | | | | | |
| Total .. | | | | | | |
| III. GENERAL EXPENSES .. .. | | | | | | |
| IV. REPAIRS— | | | | | | |
| Permanent Way .. .. .. | | | | | | |
| Electrical Equipment of Line .. | | | | | | |
| Buildings and Fittings .. .. | | | | | | |
| Power Plant.. .. .. .. | | | | | | |
| Works and Sundry Plant .. | | | | | | |
| Miscellaneous Equipment .. | | | | | | |
| Total .. | | | | | | |
| V. PERMANENT WAY RENEWAL FUND .. .. .. .. | | | | | | |
| VI. DEPRECIATION .. .. .. | | | | | | |
| Total Working Expenses .. | | | | | | |
| Gross Balance .. .. | | | | | | |
| VII. FIXED CHARGES— | | | | | | |
| Interest on Capital .. .. | | | | | | |
| Sinking Fund .. .. .. | | | | | | |
| Total .. | | | | | | |
| Net Surplus for Week .. .. | | | | | | |
| " " to date this year.. | | | | | | |
| " " for corresponding Week last Year | | | | | | |
| " " to date last year.. | | | | | | |

| ELECTRICAL ENERGY. | K.W. Hours |
|---|---|
| Car Works .. .. .. | |
| Car Sheds (prior to Night Load) .. .. .. | |
| Car Sheds (Night Load).. | |
| Pinkston .. .. .. | |
| Lighting Cars .. .. | |
| Traction .. .. .. | |
| Total accounted for .. | |
| H.T. Current unaccounted for .. .. .. .. | |
| Total Generated .. | |
| Percentage of Current unaccounted for .. .. | |
| Traction K. W. Hours per Car Mile .. .. .. | |

| | Fuel |
|---|---|
| Consumpt (tons) .. .. | |
| Consumpt per K. W. H. Generated (lbs.).. .. | |
| Consumpt per K. W. H. accounted for (lbs.) .. | |
| Consmt. per Car Mile (lbs.) | |
| Consumpt per E.H.P. (lbs.) | |

| | Week ending |
|---|---|
| Mileage—Dead .. .. | |
| Revenue .. | |
| Total .. | |
| Passengers Carried .. | |
| Average Passengers per Car Mile .. .. .. | |
| Average Receipts per Passenger .. .. | |
| Average Number of Cars 16 hours day .. .. | |

* These columns would extend to the foot of the Form.

**Form No. 73.**—

FINANCE BOOK.

ACCOUNTS SUBMITTED TO.....COMMITTEE.....190..

| | Name | Initials | Amounts | |
|---|---|---|---|---|
| | | | £ s d | £ s d |
| | | | | |

**Form No. 74.**—See pages 88–89.

**Form No. 75.**—

VOUCHER. (FRONT).

.....190.. **Received from**.....

..... the sum of .....

.....Sterling, being

.....

£ : :

(BACK).

Voucher No.....

...../...../190

Name,.....

£ : :

Account Chargeable,.....



**Form No. 76.**—

INVOICE ALLOCATION BOOK.

| Invoice No. | Tradesmen's Ledger Folio | Name | Goods Purchased | Total Amount | General Stores Account | Car Works Stock Account | Per. Way Yard Account | Per. Way Streets Stock Account | Dalmarnock Store Account | General Fuel Account | Overhead Equipment (Wires) Cap. | Invoice No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | |
| 1 | 440 | National Conduit and Cable Co. | Cables and Wires | 11,853 1 0 | 11,172 16 0 | .. | .. | .. | .. | .. | 680 5 0 | 1 |
| 2 | 440 | National Conduits and Cable Co. .. .. | Ducts .. .. | 839 7 2 | .. | .. | 839 7 2 | .. | .. | .. | .. | 2 |
| 3 | 512 | Alex Stark & Sons .. | Stones .. .. | 360 1 7 | .. | .. | .. | 360 1 7 | .. | .. | .. | 3 |
| | 59 | British Thomson Houston Co., Lim. .. .. | Equipments .. | 353 14 4 | 353 14 4 | .. | .. | .. | .. | .. | .. | 4 |
| 5 | 62 | Brownlee & Co., Lim. .. | Timber .. .. | 1,400 10 0 | .. | 1,400 10 0 | .. | .. | .. | .. | .. | 5 |
| 6 | 400 | Merryton Coal Co. .. | Fuel .. .. | 450 6 4 | .. | .. | .. | .. | .. | 450 6 4 | .. | 6 |
| 7 | 375 | Marks & Johnston.. .. | Oil .. .. | 40 3 2 | .. | .. | .. | .. | 40 3 2 | .. | .. | 7 |
| | | | | £15,297 3 7 | £11,526 10 4 | £1,400 10 0 | £839 7 2 | £360 1 7 | £40 3 2 | *£450 6 4 | £680 5 0 | |

This Book, in practical use, will contain a great many more columns than are shown here.

* See Fuel Allocation Book, Form No. 77.

**Form No. 77.—** FUEL ALLOCATION BOOK.

| Invoice No. | Name | .....Account | | | | .....Account | | | | .....Account | | | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Desc. | T. C. Q. | Rate | Amount | Desc. | T. C. Q. | Rate | Amount | Desc. | T. C. Q. | Rate | Amount | T. C. Q. | £ s d |
| | | | | | | | | | | | | | | | |



**Form No. 78.—** TRADESMEN'S LEDGER.

*Dr.* ..... COMPANY, LIM., GLASGOW. *Cr.*

| | | | £ s d | | | | £ s d |
|---|---|---|---|---|---|---|---|
| 1901 | | | | 1901 | | | |
| June 4 | To Cash .. .. .. .. | *160 | 11,853 1 0 | June 1 | By Balance .. .. .. | ✓ | 12,692 8 2 |
| " | " " .. .. .. .. | 160 | 839 7 2 | 30 | " Cables, &c. .. .. .. | †401 | 5,000 0 0 |
| July 5 | " " .. .. .. .. | 161 | 5,000 0 0 | Dec. 4 | " " .. .. .. | 1,910 | 3,430 2 0 |
| 1902 | | | | 1902 | | | |
| Jan. 6 | " " .. .. .. .. | 189 | 3,430 2 0 | May 31 | " " .. .. .. | 3,145 | 216 8 0 |
| May 31 | " Balance .. .. .. | ✓ | 216 8 0 | | | | |
| | | | £21,338 18 2 | | | | £21,338 18 2 |
| | | | | 1902 | | | |
| | | | | June 1 | By Balance .. .. .. | ✓ | 216 8 0 |

* Cash Book Folios. † Invoice Numbers.

**Form No 79.**—See page 95.

**Form No. 80.—** STOCK SHEET.

Stock taken by.....
„ checked by.....
Priced by.....
Extensions done by.....
„ checked by.....

Accountant .....

Stock in .....Store as at.....190

| Article No. (as per Standard List). | Description | Stock to be Entered in | Quantity | T. C. Q. L. | Rate | Amount | Stock as per Stock A/c. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Quantity | T. C. Q. L. | |
| | | | | | | | | | |



**Form No. 81.—** FIRE INSURANCE REGISTER.

PROPERTY SITUATED AT.....

| Subjects | Date of Letter to Company instructing Insurance | Period of Insurance | | | Allocation of Subjects Insured | | | | | | | | | | | | Total Amount Insured | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | From | To | No. of Days | Buildings | | Machinery | | Cars | | Sundry Vehicles | | Upfittings & Furniture | | Stock-in-trade | | | |
| | | | | | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes | Per Policies | Per Covering Notes |
| | | | | | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| | | | | | | | | | | | | | | | | | | |

| Rate per Cent. | First Premium | | | | | Annual Premium | Insurances Cancelled | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Gross Amount for Exact Period | Returns Allowed | | Net Amount | Date Paid | | Date | Returns Allowed | | Remarks |
| | | Particulars | Amount | | | | | Particulars | Amount | |
| | £ s d | | £ s d | £ s d | | £ s d | | | £ s d | |

**Form No. 82.**— Branch No.....

Date of Admission...../..../19..

APPLICATION FOR MEMBERSHIP.

This Form, after being filled up and signed by the Applicant, may be taken to the Medical Officer of the Society for the Branch which the Applicant desires to join, and should the Applicant be suitable for admission to the Society the Medical Officer will sign the Certificate below. The Form will then be handed to the Convener of the Branch Committee and transmitted by him to the Secretary.

| | |
|---|---|
| Full Name of Applicant, .. | |
| Residence, .. .. .. | |
| Occupation, .. .. .. | |
| Depôt, .. .. .. .. | |
| Age next Birthday, .. .. | |
| Married or Single, .. .. | |
| If Married, is your Wife alive ? | |
| Date of entering Service .. | |
| Are you in good health ? .. | |
| Are you a member of any other Society ? .. .. .. | |

I hereby declare that the foregoing particulars are, to the best of my knowledge, correct, and in the event of my application being accepted I have to request that the Entrance Fee of..... be deducted from my wages, and also the weekly subscription.

*Applicant's Signature*.....

*Date*.....19..

MEDICAL OFFICER'S CERTIFICATE.

I hereby certify that I have examined..... the Applicant above-named, and find that he is at present free from all bodily disease and is in a sound state of health, and is suitable in every way to be admitted as a member of the.....Friendly Society.

*Signature*,.....

*Date*,.....19..



**Form No. 83.**—

APPLICATION FOR SICK BENEFIT.

*The Secretary,*

SIR,

Referring to Medical Officer's Certificate below, I beg to state that I am at present suffering from.....and claim allowance, as per benefits for Class....., for..... days, from ..... to ..... (both days inclusive).

Signature,.....

Residence, .....

Occupation,..... Branch, .....

No. on Roll,..... Date,..... 19 .

MEDICAL OFFICER'S CERTIFICATE.

I hereby certify that I examined the above-named..... on .....19 , and find that he is suffering from ..... ..... and is unable to follow his employment.

Signature, .....

Date, .....19 .

VISITORS' CERTIFICATE.

We hereby certify that we visited the above applicant on..... and find that he is unable to follow his employment, and that, to the best of our knowledge and belief, his sickness is not the result of any misconduct, and we therefore consider he is entitled to the benefits of the Society for..... days, as stated above.

Signed, { .....
.....

PASSED FOR PAYMENT.

.....Days @ .....per Week = £ : :

..... Secretary.

.....19 .

**Forms Nos. 84 and 85.**—See page 136.

**Form No. 86.—** REGISTER OF MEMBERS' CONTRIBUTIONS AND BENEFITS.

CONTRIBUTIONS FOR YEAR.

| Branch No. | Member's Name | Occupation | Age | | Amount brought forward | January | | | | February | | | | March | | | | | April | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Married | Single | | 6 | 13 | 20 | 27 | 3 | 10 | 17 | 24 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 |
| | | | | | £ s d | | | | | | | | | | | | | | | | | |

| May | | | | June | | | | | July | | | | August | | | | September | | | | | October | | | | November | | | | December | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 12 | 19 | 26 | 2 | 9 | 16 | 23 | 30 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 | 1 | 8 | 15 | 22 | 29 | 6 | 13 | 20 | 27 | 3 | 10 | 17 | 24 | 1 | 8 | 15 | 22 | 29 | £ s d |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTE.—Left-hand page for Contributions received from members; right-hand page for Payments. Both pages ruled alike.



**Form No. 87.—**

STATEMENT OF RECEIPTS AND PAYMENTS FOR WEEK ENDING.....19.....

| No. of Memb'rs on Roll | | Receipts | | | | | Branch | Payments | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Entrance Money | Members' Contributions | | | Total | | Sick Aliment | | | | Allowances on Death of Members | Allowances on Death of Members' Wives | One-third of Contributions (less Payments) refunded on leaving service | Miscellaneous | Total |
| | | | No. of Memb'rs | | Amount | | | No. of Memb'rs | | Amount | Average per Member on Roll | | | | | |
| Class I. | Class II. | | Class I. | Class II. | | | | Class I. | Class II. | | | | | | | |
| | | £ s d | | | £ s d | £ s d | | | | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d | £ s d |
| | | | | | | | Balance | | | | | | | | | |

Secretary and Treasurer.....

**Form No. 88.—** ABSTRACT OF MEMBERS.

| Week ending | ..... Branch | | | | ..... Branch | | | | ..... Branch | | | | ..... Branch | | | | Totals | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | New | Add | Left | Deduct | New | Add | Left | Deduct | New | Add | Left | Deduct | New | Add | Left | Deduct | New | Add | Left | Deduct | |
| | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | | Trans-ferred | |
| | Total on Roll | | | | Total on Roll | | | | Total on Roll | | | | Total on Roll | | | | Total on Roll | | | | |

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